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ORIGINAL ARTICLES.

PSYCHICAL EPILEPSY.

S. J. FORT, M. D., Ellicott City, Md.

The curious relationship of the convulsive disease, the faint boundary lines between what may be termed a well-marked disease and another equally as well marked; the combination of two disordered conditions in the one person; the peculiar features of Jacksonian epilepsy; *petit mal* in one patient, *haut mal* in another, and both forms in another; irregularities of symptomatology occuring among groups of accurately diagnosed forms of disease; all such eccentricities of diseased action render this group of diseases extremely interesting to the physiologist, the pathologist, and the medical man proper, as well as to the medico-legal functionary.

The etiology in so many cases is obscure. The lesions, if any, would seem to be of a nature to produce contrary symptoms. Very frequently the scalpel and the microscope fail to find sufficient pathological results. Causes operating from without produce directly opposite results in individuals apparently of the same physical equality.

A blow upon the knee of one child produces no injury beyond the subsequent bruise, in another child a destructive inflammation is lighted up and the joint is wrecked. One child falls and strikes its head, traumatic epilepsy ensues; others endure the same injury with no permanent injury resulting. A bruise in one woman's breast produces a cancerous growth on the site of the injury; other women recover from deep-seated trouble in these glands without an after-result.

One child is delivered by forceps and lives to be an idiot; hundreds of others show no signs of such manipulation at the time of their birth.

Notable examples of pre-natal impression and accidents are found among the institutions devoted to the care of the feeble minded; among the many thousands who are annually born into the world, how many there may be who have been subjected to the most severe pre-natal shocks without injury, either mental or physical?

We study the tabulated family histories of our defective charges and gravely point out the terrible ruin of mind made by alcoholism in one or both parents; a similar study of family histories of thousands of parents addicted to alcoholism would show thousands of children born with minds to all intents and purposes sound and whole.

It may be that nature works without design in these troubles, that eccentricity of action argues a departure from rule in the primary cause of disease, but it is probable that the increased knowledge and further improved methods of study and research will eventually show the physical deficiency, if that be the reason; however infinitesimal it may be, it cannot forever elude the researches of modern science.

Of interest to the political economist as well as the medical man is the close relationship of the convulsive habit to crime and criminals, especially interesting since the latest crop of perverts, whose mental and moral obliquity turn towards the destruction of human life. That this relationship exists is without doubt within the bounds of possibility. A somewhat intimate acquaintance with mental defectives has caused me to think that there is a far more intimate connection between the habitually vicious and depraved and the epileptic condition than at present insisted upon by authorities in this specialty.

The late Dr. Kerlin, whose thirty years of intelligent study of imbecility renders his writings of great value, in a paper published in 1881, describes what he terms the epileptic change in feeble-minded children, and the following case is one he presents which will sufficiently illustrate the remainder of his valuable paper:

"A girl of four, when brought under observation, had a chronic habit of biting, but no other special eccentricity. During the fourteen years of training at Elwyn, she ranked high in her school duties and became useful in household duties, but never really gave up her habit of biting; her paroxysms were always unannounced by visible prodroma; they were directed against the loved and unloved, and she was as irresponsible and helpless when snapping at her victim as the typical epileptic when he falls to the ground; her face became flushed after the act, with a wild, lost look in it, or sometimes it was as the face of a swimmer rising from the water more chilly than was anticipated when plunging into it—cold, cramped and surprised.

There were long suspensions of these attacks, like the hopeful rests of epilepsy, to be followed, like them, with disappointment in a fresh outbreak of her irresponsible ferocities."

It would seem that the above case was that of what is now known as "psychical epilepsy," or the "psychical epileptic equivalent." Dana, one of the latest writers, thus describes psychical epilepsy, a sub-division of *petit mal*, or, to more accurately place it in its proper category, a sub-symptom of the mild form.

"Sometimes," says this author, "the minor attacks are followed by outbursts of maniacal excitement or by sudden, violent automatic movements, and in these cases, the patient commits crimes of violence. This form of epilepsy may come on without a preliminary minor attack, and then it is to be considered a psychical epileptic equivalent."

As I have said, I think that such a case as Kerlin describes would fall rather under this type of epilepsy, evidently identical with the "masked epilepsy" of Esquirol, the *epilepsia larvata* of Morel, rather than to be given as the prodroma of true epilepsy proper, and I place the two following cases of my own in the same class.

The first is a girl now eighteen years of age, who came under my care five years ago. She was then a dull, stupid imbecile, utterly unused to the requirements of polite society, irresponsible to either love or fear, but with no especial history of outbreaks of violence or destructive habits. Under the softening influence of our school training, she gradually brightened, began to talk, learned to read and write, and displayed much affection towards her teacher and attendant.

One day she suddenly attacked her attendant, giving as an excuse that the attendant struck her first. When I saw her shortly after the fracas, she was a picture of sullen imbecility. Simultaneously with the explosion of muscular and nervous action, she seemed to have relapsed into the mental state of a year previous. In a week's time she was herself again, and remained so for a month or two, when she again exploded. Isolated for a time from her companions, she regained her equilibrium and was removed from our care to her house.

As soon as she got home, she had recurring fits of passion, alternating with periods of sexual excitement, finally going to bed and refusing to get up. By use of much physical force she was brought back to us, and the morning after her arrival she arose with the other patients, but seemed in a trance, refusing to talk, eating voraciously, leading an oyster-like existence.

Under active treatment, she finally regained her lost ground, but with her increased mentality came again the violent outbreaks of temper, followed by periods of depression. At no time in her history has there been any actual epileptic "fit."

Her family history is very bad. Her father is nothing more mentally, than a high-grade imbecile; her mother was an illiterate, excitable person, with an overgrown faculty for making money, who died recently of apoplexy, superinduced by overeating.

The other case is a boy nearly twenty. He had been under observation for three years. A nice, polite, clean fellow, capable of a certain amount of school education, fond of play, obliging and friendly. There was nothing in his history out of the ordinary run of congenital imbeciles. Both parents highly educated, and so far as known, no evidence of mental trouble anywhere on either side. The father lost a foot in battle, and has suffered intense neuralgia from the stump, the acme of

pain storms seeming to have been about the time the boy's mother became pregnant; this was the only symptom of nerve trouble anywhere in the history.

The boy showed signs of "backwardness" at an early age, and when about fourteen, without warning, eloped from home; he was returned by the police to a family well-nigh distracted, and further alarmed by his apparently being insensible. He recovered in a short time, and within two months ran away again; this time he was found unconscious under a tree in a park near the house. Coming to me, he became one of my most interesting cases, eagar to learn, easily controlled, and apparently trustworthy, giving no signs of any desire to elope for some time.

Looking out of a back window one afternoon during a heavy shower, to my surprise I saw this boy scudding across the field toward the woods. Immediate pursuit enabled us to corner him before he had gone very far, and he was finally located by a sort of barking noise, and evidences were plain that he had vomited freely. Brought home he was apparently unconscious, but when threatened with a douche of cold water rallied, and beyond considerable depression, was himself again.

Later on, he again ran away, this time not being captured until late in the evening; he was thoroughly exhausted by his efforts at pedestrianism, and kept his bed for a week.

That was the last time he ever essayed that eccentricity; later he developed a new phase. He was brought to me suffering from a pain he could not locate, and being sent to bed, remained there two days refusing to speak or eat. On the morning of the third day he got up with the other boys in his domitory, dressed and took his place in his class as though he had never been away.

Gradually we noticed that he was standing still mentally, the slightest rebuff or reproof or obstacle to his desires brought on a paroxysm of this alleged and exceedingly elusive pain, to be followed by a period of depression, refusal of food, and a most singular and marked physical change. He would begin the outbreak a fairly well-nourished boy, and in the course of a few hours would look as though he had passed through a serious illness; his cheeks and eyes sunken, his features drawn, respiration, temperature and pulse below the normal. Equally remarkable is the rapid recovery of lost ground when reaction once sets in.

The female is essentially vicious, and the boy needs only suggestion to become so; the moral sense is lacking in both, and it is only the force of example and environment that prevents either from joining the ranks of juvenile criminals.

It may be wrong to argue that a possible inherent tendency to spasms may produce a crime as a result rather than a fit, or that the relationship is so close that the criminal has a fit at one time, and at another the crime is substituted for the nervous explosion. "Human character," says Wood, "is the result of the established balance between the will and the intellectual attributes and the emotional forces of the individual. When any of the correlated factors are altered, there must be a corresponding change in character."

Close association with epileptics shows with great distinctness the result of this disturbance of correlated factors. The loss of will, the loss of memory, the lack of ability to inhibit the lower intellectual and emotional brain functions, the development of the passions, the growth of a superficial veneer of good behavior over the thoughts and desires of a satyr or bacchanal kept in suppression only by the fear of a superior strength, the brutal selfish, malevolent, surly, irascible, perverse egotism of epileptics is well known, especially in epileptic imbeciles. The Mr. Hyde of human nature is always in the ascendency, and we find these same characteristics in numbers of criminals, particularly in the younger male and females, who throng our courts and fill our station houses.

We have found out that the juvenile insane show a marked criminal tendency; we know that there is a distinct type of imbecile with the same tendency, which we call the moral imbecile, and I fancy, when each state will assume the burden of care and restraint of her epileptic defectives, that intelligent study will show that this terrible disease drives many of its victims to the penitentiaries, even to the gallows, for hideous crimes against the person, murder, arson, et al.

Proper education of the more juvenile delinquents would probably detect signs of what we have termed pyschical epilepsy, and proper treatment eradicate the symptoms or point out the propriety of life restraint.

COMMUNICATIONS.

FLAT-FOOT AND ITS TREATMENT; THREE RECENT CASES OF STONE IN THE BLADDER; LITHOLAPAXY.*

THOMAS G. MORTON, M. D., PHILADELPHIA.

Mr. Chas. S., of Richmond, Va., has suffered from various accidental injuries of the right leg and foot, the first was about fifteen years ago, which was a sprain of the knee from a fall in dancing; after which for many years he suffered considerable lameness; subsequently he twisted or sprained the ankle, and on several occasions this was repeated. A year ago he again injured the ankle, a probable sprain, and until July following was hardly able to walk, always requiring some sort of support; at that time he had a steel sole placed in the shoe, from which he had little if any relief; he then began to have spinal pain and a distressing aching in the neck and back of the head; could not go about except with the aid of a cane, suffered from exhaustion, became insomnious, lost appetite and weight.

On examination, early in January, 1894, I found a weak ankle and extreme talipes valgus. In addition there was asymmetry of lower extremities; the right or weak limb was three-quarters of an inch shorter than the other, and calf measurement showed the right half an inch less in circumference.

A lateral support was applied to the limb to support the weak ankle, and in the shoe, a Gefvert steel-spring arch; the short limb was made equal to the left by adding sufficient to the heel of the right shoe.

Mr. S. reports: "I can hardly realize that after so many years of suffering, and in so short a time, I would be able to walk again without pain. I find the steel spring comfortable, and I find no inconvenience in having it in my shoe; my back and head have been relieved, I presume, by the high heel."

REMARKS.—Either in uterine or early child life the patient had a slight one-sided paralysis which, although arrested early, was sufficient to interfere for a time with the growth of the extremity, and this accounts for not only the ankle weakness, but the variation in the length and size of the right as compared with the left limb. Valgus—indeed, all the varied forms of congenital talipes arise in the same way. Spinal and head pain is frequently associated with and caused by a short limb; the constant shocks the spinal cord and brain are subjected to in certain individuals is quite sufficient to bring about in nervous temperaments, perhaps with impairment of general health, just such a condition.

The weak ankle has in this case been marvellously improved. even in a comparatively short time, by the steel arch.

The spring arch, which I exhibit, is fastened in the shoe directly under the tarsal arch; it is made of two elliptical pieces of steel which are three and a half inches long and two inches wide; one plate is flat, the other is arched on its inner side, which is intended to support the tarsal arch; tne plates are joined together at their outer edge by a stout hinge, and the upper or arched plate on its inner side comes in contact with a lump of rubber which, when pressure is made from above, yields and gives the spring to the foot.

CASE I.—Leon F., aged sixty-six years, living in Kansas, a merchant, had never been sick until about twelve years ago, when he first suffered from bladder irritation, and, finally, with the most aggravated and distressing symptoms of stone in the bladder; subsequently he came to Philadelphia.

On examination, the urethra from the prostatic portion of the canal to several inches in advance was found distended by a series of calculi, impacted and joined together, forming, as it were, a long, continuous stone; the various facets, however, permitted more or less movement.

A median section over the most prominent stone exposed the urethra, and the calculi were readily removed; the stones distended the urethra to such an extent that when removed a finger was readily

*Read before the Phila. Acad. of Surg. February 5, 1894.

introduced into the bladder, in which three calculi were discovered and easily taken out without further use of the knife. Recovery and complete restoration of the function of the neck of the bladder followed.

Early in 1893, or about twelve years afterward, Mr. F. had a recurrence of irritation of the bladder, and later with the usual stone symptoms.

In May he came to this city and a calculus about an inch and a half was found, and on June 1st litholapaxy was performed and the bladder completely cleaned. Ten days later he was quite well and went West, and remained so until the latter part of November when, after slight renal pain, the symptoms of stone reappeared. A stone was found and removed by litholapaxy and without using an anæsthetic; weight, fourteen grains.

January 12, 1894. Having since the last operation been free of all bladder symptoms, he had two sharp chills and some fever, and almost at once irritation in the bladder followed; the sound detected a small stone, which was easily grasped by a small Luer crusher, and the stone was removed without breaking; weight, five grains.

25th. After another slight attack of pain and very slight irritation a small stone was seized and extracted; weight, three and a half grains; all symptoms have been relieved.

CASE II.—Col. T. H. R., aged fifty-nine years, came under my care November 11, 1893. Family history: grandfather and father had severe bladder trouble and supposed to have had stone. From a description of an attack through which a brother passed, it was supposed he suffered from renal calculus.

Present attack: about two years ago patient passed a stone for first time, since then stones of varying size have been passed; has had two attacks of renal colic.

In July, 1892, he was subjected to lithotripsy and received little if any benefit; his sufferings were in nowise lessened. In August last he was sounded and declared to be free of stone; his symptoms were judged to result from cystitis.

November 16. An examination of the bladder revealed a stone of considerable size; urine contained a large amount of albumim, but no casts.

18th. Litholapaxy was performed, the stone crushed and removed by Bigelow's apparatus.

December 9. Patient was free from vesical irritation and left for his home.

The calculus weighed 178 grains.

CASE III.—Mr. W. C. R., aged sixty-six years, consulted me at the request of Dr. J. A. Patterson, of Salem, N. J.

History. For twelve years suffered from attacks of rheumatism and sciatica, then for a short time had comparative health. Two years ago began to suffer from irritation of the bladder; the symptoms gradually increased in severity. The urine showed a large amount of pus.

December 12. Sounding revealed a large, hard stone.

21st. Litholapaxy and removal of fragments by Bigelow's evacuator; the stone weighed six drachms and fifteen grains, and was uric acid. Ten days subsequently the urine was normal, and all irritation having disappeared, he left for his home quite well.

REMARKS.—The ages of the three cases were respectively fifty-nine, sixty-two and sixty-seven years. Anæsthesia was omitted in one of the operations. In dilating the urethra a No. 31 bougie was used. The bladder was cleansed with boric acid solution and eight ounces of the same allowed to remain during the crushing. Prompt recovery followed in each case. In the first case the patient was free of irritation for nearly five months, then sudden irritation announced the descent of a renal stone; an entire absence of symptoms followed until a lapse of six weeks and two weeks' intervals, when small renal calculi entered the bladder and were promptly removed, using the small duck-bill lithotrite. Piperazine was given to each patient, and directions to have the bladder examined at intervals of four months.

DR. PAUL GARNIER, of Paris, has made a special study of those slum children that are the offspring of habitual drunkards. He says: "There is a flaw in the very nature of these young wretches that the psychologist sees clearly and notes with apprehension — the absence of affectionate emotions, and where they did not become lunatics they show 'insensibility and pitilessness.'"

LIGATION OF THE COMMON AND EXTERNAL CAROTID ARTERIES AND THE JUGULAR VEIN.*

W. W. KEEN, M. D., PHILADELPHIA.

Mr. St. John, a Frenchman, about twenty-five years of age; was first seen at the Presbyterian Hospital in Chicago, August 9, 1893, in consultation with Drs. D. W. Graham and N. Senn. Unfortunately, in consequence of change of residents and absence from the city, the history is imperfect.

About three years before I saw him he had been shot, the ball entering just below the tip of the left mastoid. He was unconscious for a brief time, but when he recovered, either the same day or the next morning, he discovered that his right eye was absolutely blind. In addition to this, his right arm was paralyzed, but whether immediately after the accident or at a somewhat later period was not ascertained. When I saw him, the right arm was the subject of contractures, the result of the old monoplegia. The leg and face was not affected. The aneurismal bruit and thrill were very marked, and could be felt down the left side of the head and neck. There was but little external swelling. The man sought relief on account of the noise produced by the aneurism, which made it impossible for him to do any work.

Operation, August 15, 1893, by the kind request of Dr. Graham. The carotid was laid bare by the usual incision over the anterior border of the sterno-cleido-mastoid, the middle of the incision corresponding to the upper border of the thyroid cartilage. Considerable difficulty was found, even at this stage, in consequence of the inflammatory adhesions resulting from the gunshot wound of three years before, and also from the fact that the vessels lay nearly under the middle of the sterno-cleido instead of under its anterior border. My intention had been, first, if the adhesions (the presence of which I had anticipated) would allow me to reach the internal carotid, that I should tie that and the jugular just above the bifurcation of the carotid; but if the adhesions prevented this, I determined to tie the common carotid and the external, the latter being tied so as to prevent the reestablishment of the current by the anastomotic circulation from the other side. Even the ligation of the external carotid above the bifurcation was quite difficult by reason of the adhesions. It was done just at a point were the first branch was given off, and the ligature was made to include both the external carotid and its branch in one loop. The jugular vien was tied at a point half an inch below the level of the ligature around the common carotid, in order that the necessary injury to the tissues should not be at the same level. The veins were very full, giving thus an additional evidence that the diagnosis of arterio-venous aneurism was correct.

Dr. Graham has kindly written me under date of October 2nd, as follows: "The wound healed practically by primary union. One angle was a little slow in closing, but there was no purulent discharge at any time. The morning after the operation ptosis and immobility of the left eye ball were discovered, although he could turn the globe outward somewhat, and slightly upward. The pupil was not affected, but responded to light. There were no mental disturbances or paralysis. In two or three weeks improvement began in the eye, and when he left the hospital three weeks ago he could keep the lid up nearly in a natural position, and could move the eyeball in every direction, promising complete restoration from the paralysis. He was to report to us occasionally, but I have failed to see him since then."

REMARKS.—I regret very much the imperfect history of the case, but the circumstances made it impossible to get any more complete history. For the same reason no examinations of the eye-grounds were made, either before or since the operation. Fortunately, the absence of a post-mortem prevents our ascertaining absolutely the pathology of the case. The ball after traversing the blood vessels entered the skull at its base, and without doubt cut the right optic nerve between the eyeball and the chiasm. The paralysis of the right arm was due, of course, to the involvement of the left motor cortex, or

* Read before the Phila. Academy of Surgery, February 5, 1894.

fibres proceeding from it. Whether the ball in entering the skull was split in two pieces, one of which injured the left cortex in the arm area, and the other the right optic nerve, or whether the paralysis of the arm was due to an embolus from the arterio-venous aneurism, can only be speculated on. None of the ball was ever found. What the final result as to the aneurism will be is not yet ascertained.

SUGAR AS AN OXYTOCIC.

F. H. PRITCHARD, M. D., Weaver's Corners, Ohio.

Professor U. Mosso and Luigi Paoletti, at the conclusion of a mémoire on the Influence of Sugar on the Work of the Muscles, which mémoire was read before the Accademia dei Lincei (*Rendiconto R. Accademmia dei Lincei*, Vol. II, 2 Sem., Ser. 5, fas. 8), suggested "that we hope that it will be able to be used with advantage in therapeutics, to revive, for example, the pregnant uterus, tired out by effort, when expulsion of the fœtus is necessary." A distinct allusion is here made to the possible ecbolic action of sugar. In the *Gazzetta Degli Ospitali*, No. 2, 1894, Prof. Bossi, of the Obstetrical and Gynecological Clinic of Genoa, Italy, reports the results which, since the publication of Professor Mosso's experiments, he has obtained with sugar as an oxytocic in a large number of cases. As it was known to have an effect upon the voluntary muscles it was thought probable that it would also act on the involuntary. In these experiences he sought to exclude all sources of possible error as to suggestion. As he was in charge of the Obstetric Guard of Genoa, he distributed to each member a number of powders of finely powdered sugar, each containing thirty grams (about an ounce) with directions to give one powder in cases of uterine inertia and, if requisite, to repeat the dose after two hours. As the members of the Guard are only called in by midwives when there is a relative or absolute uterine inertia, and where something is urgent, these results are worthy of notice. He concludes as follows:

1. In ten out of eleven cases a positive ecbolic result was obtained from an ounce of sugar in eight ounces of water. This effect was observed on an average a half hour after its administration.

2. In some cases the one powder was sufficient to induce expulsion of the fetus.

3. If a second powder were given after two hours, the effect was more pronounced.

4. In no cases were tetanic contractions observed, while on the contrary, the contractions were regular and no incarceration of the placenta was noted.

On account of these favorable results he reports them and thinks that he is justified in recommending the use of sugar as an ecbolic in obstetric practice. It is prompt in its action; is not associated with certain disadvantages as ergot and its preparations, it does not cause tetanic action, is not liable to be followed by incarceration of the placenta or the fetal parts as with ergot and, on account of there being no danger of poisoning, the dose may be increased and repeated without danger to either mother or fetus. It is easily found in any family and hence may be had at all times. It short, he states that it possesses all the advantages of an ideal ecbolic without any disadvantages.

The night next after reading this article I was called to see a healthy German woman in the country, who had already given birth to two children, who are now alive and well. It was then half-past three in the morning. The pains had begun at supper time the evening before, and reappeared at slightly regular intervals, but not with much intensity. On external palpation I found the child with the head presenting and on the left side. Internally I found everything to be normal and the head presenting in the left occipital position. The cervix was well dilated, but there was nearly no bag of waters, the head having forced itself down early and allowing none to escape in front into the cervical sac. The pains came on now and then, but they were not of much consequence from their weakness. I waited a half hour, and then I thought of the sugar and the Italian article. Without any faith

in the measure I took a tablespoonful of granulated sugar, dissolved it in a glass of water and gave the woman a swallow. There was a very slight increase in pains after about twenty minutes when I had her take two swallows of the solution. In twenty minutes more, the pains came on with great intensity. They absolutely gave her no rest, rolled on one after another, and in a short time, one half-hour after the last dose the child was shot out between her thighs. I was somewhat alarmed with the rapidity and intensity of the pains for I feared the consequences of a precipitate birth, but fortunately there was no permanent tear nor inversion, etc. The placenta followed in about two minutes, and there was no more hemorrhage than usual in such cases. After about half an hour she complained of griping pains which I treated by a warm compress and whiskey over the abdomen and went home thinking all would quiet down, in the course of a few hours. But it did not. The pain came on every few minutes all that day so as to be distressing, The next morning at one o'clock, I was called by her husband and told that she was having some "queer spells" that went beyond the comprehension of her mother, the attendant. I hastened down to the house and found that she was suffering from a sort of terrific after pains so severe at times as to cause the sweat to stand out on her face, while the uterus would contract as hard as a billiard ball. I took in the situation at once. The sugar had overdone its work, and given rise to tetanic contraction of the uterus. Hot compresses to the abdomen and paregoric internally relieved them somewhat, but it was only after drop doses of the tincture of gelsemium every hour that they calmed down. The day after that they had disappeared entirely, though the day of the morning when I was called they continued, but were not distressing nor severe.

From the literature and my single experience I conclude that sugar is an efficient oxytocic, and one which is devoid of danger in ordinary and carefully measured doses. Though Bossi states that it will not cause tetanic contractions, my one experience leads me to the contrary view. That employed in graduated and measured doses, at regular intervals, of say, two hours, it will give good service. That it does not increase the force of the heart-beat and other disagreeable symptoms, like quinine when used as an oxytocic; nor like ipecac, cause vomiting nor is it cumbersome and bothersome like the hot douche, but is handy, quite certain, and easily obtained everywhere. That large doses will cause tetanic contractions and induce painful after-pains. That gelsemium, in drop doses of the tincture, is antidotal to this over traction.

Pertinent Facts on Vaccine Virus.

Keep in a glass-stopper jar in an unheated room in winter and in a refrigerator in summer.

Do not carry in an inside pocket.

Do not use too much water.

Do not abraid too large a surface.

Do not use any dressing.

Do not report until the 8th, or better, the 10th day.

Our plan of operating is as follows:

We scarify by scraping off the scarf-skin from a surface about one-fourth of an inch square over the insertion of the deltoid muscle, scratching the surface thus abraided in two directions.

We touch one side of the ivory point with a drop of water, immediately shaking the excess off; rub this side briskly on the abrasion and then form a paste by using the dry side of the point.

We finish the operation by gently scratching the virus in with the point we have used.

We are then certain of getting some of the vaccine corpuscles within reach of the mouths of the absorbents.

Too much water, with the serum that exudes from the arm, frequently washes away the corpuscles, while too thick a paste, if not pricked in, will dry as a varnish, beyond the reach of the absorbents which have been closed by the rubbing process.

If you protect with a shield, see that it is properly ventilated.

Failures result from

Using unhealthy or poorly fed cattle.

Pressure used in removing Lymph.

The clamor of physicians for colorless points.

Hot mail-cars, drug stores and physicians' offices.

Improper methods of operating.

Old goods, or mucilage and croton-oil points! sold at cut-rate prices, while human lives are sacrificed.

DR. H. M. ALEXANDER.

TRANSLATIONS.*

PHYSICAL DIAGNOSIS OF BILIARY CALCULI.

C. Gerhart calls attention to the early symptoms of biliary colic. The attack begins often four to five hours after a hearty meal, or when the food passes into the duodenum, causing, by a reflex action, an expulsion of bile from the gall bladder. This will produce a temporary sensible enlargement of the sac (supposing that obstruction of the duct exists, and the gall cyst retains its distensibility). This enlargement subsides as soon as the stone has passed; the localized inflammation having produced some peritonitis, a circumscribed area of crepitant rales can be heard with the aid of the stethoscope. This, together with pain, may exist some little time after the stone has found its way into the intestine. This latter condition is often greatly ameliorated by applications of ice water. An extension of the peritoneal inflammation to the pleura is but rarely observed. As a most frequent complication, we have an appendicitis due to a mechanical or chronic obstruction. If the attack is prolonged, the liver becomes enlarged and its edges can be easily palpated and often seen, if the patient is emaciated. Transient enlargement of the liver, one of the important symptoms, is also met with in cholelithiasis, or when the ductus communis is obstructed by ascaris lumbricoides, or other catarrhal inflammatory exudations. The head of the pancreas is also the seat of a new growth or swelling, thus producing mechanical pressure upon the duct; on the other hand it is absent in cardalgia or purely nervous hepatic colics.

Cholelithiasis can be excluded if there be an absence of crepitation over the seat of the gall cyst— if there is no enlargement of same, and if after several attacks there have been no calculi found in the fæces.—*Deut. Med. Wochen.*, No. 46, 1893.

—W.

SACROMA AT THE BASE OF THE SKULL; SECONDARY AFFECTION OF THE TEMPORAL BONE.

Dr. Schwiedof (*Arch. f. Ohrenheilk*, xxxv pg. 39), reports a case of a young man, aet 30, who had suffered for some time of tinnitus aurium, deafness, occasional discharge of pus from both ears. Other symptoms were present which did not belong to mastoiditis; stiffness and pain in the cervical region, headache, dizziness, difficulty in deglutition. The use of Glisson's extension apparatus was of little or no benefit. A diagnosis of tubercular ostitis of the atlanto-occipital joint was made, and it was decided to chisel off the antrum mastoid, with the result of finding a glandular swelling about the size of a pigeon's egg, behind the sterno-cleido-mastoid muscles. There was an absence of empyema or pus beneath the periosteum.

The patient's strength decreased rapidly, other muscles became paralyzed, viz. glosso-pharyngeal, the hypo-glossus, and lastly the vagus became affected (decrease of pulse rate and respiration); this ended in death.

An autopsy revealed a tumor situated at the base of the skull, occupying a space $\frac{2}{3}$ toward the right and $\frac{1}{3}$ to the left of the median line. A careful examination of the petrous portion of the temporal bone could not be made. A histological examination of the tumor proved it to belong to the spindle-celled sarcoma. The early symptoms regarding the disturbances in hearing, are attributed by the author to the early mechanical occulsion of the Eustachian tube. This then becomes an all important symptom in the diagnosis of these diseases; in which opinion he is supported by Gerhardt and Moos. —W.

* Translated for THE MEDICAL AND SURGICAL REPORTER by the translators W. A. N. Dorland, M. D., M. B. Werner, M. D.

THERAPEUTIC SUGGESTIONS FROM FOREIGN JOURNALS.*

CREASOTE AND SULFONAL IN WHOOPING COUGH.

In the *Rivista Clinica e Terapeutica*, No. 12, 1893, the following formula is recommended in whooping cough:

℞ Creasote.....25 cgms (grs. iv)
Sulfonal.....20 cgms (grs. iij)
Syr. tolu.....150 gms (℥v)
Teaspoonful every two hours.

BORATED SALVES AS DRESSINGS.

Dr. Koehler (*Union Médicale*, No. 39, 1893), employs the following salves as surgical dressings:

℞ Boric acid.....10 gms (℥ijss)
Glycerine.....30 gms (℥j)

℞ Lanoline.....40 gms (℥jss)
Vaseline.....20 gms (℥v)

℞ Lanoline.....50 gms (℥jss)
Vaseline.....10 gms (℥ijss)

ALKALINE NITRATES IN MALARIAL POISONING.

Dr. Buro (*Gazette des Hôpitaux*, No. 125, 1893) has employed the nitrates of soda and potash in malaria and claims that they are specifics having an action similar to that of quinine. In adults the dose is from one to one and a half grams (fifteen to twenty-two grains) per diem. They may be given either during the intervals or just before the attacks. When it is necessary to prolong their use and increase the dose the preference should be given to the soda salt as it is less toxic and has no effect upon the heart. The taste of these preparations is not disagreeable and they are well tolerated by the stomach.

EXCORIATIONS IN CHILDREN.

In *L'Union Médicale*, No. 37, 1893, the following ointment is spoken highly of in the excoriations of children:

℞ Salicylic acid.....5 dgms (grs. viij)
Subnitrate of Bismuth.....8 gms (℥ij)
Starch.....6 gms (℥jss)
Rose ointment.....30 gms (℥j)
For external use.

SULPHATE OF SPARTEINE.

Dr. Rhode (*Gazette des Hôpitaux*, No. 125, 1893), presents the following rules for the employment of the sulphate of sparteine both as a heart tonic and as a diuretic. A dose of five cgms. per diem has always been sufficient in his experience to produce diuresis. In some cases it has been of advantage to associate it with digitalis, convallaria or strophanthus. Association of these diuretics, given in small doses, will yield one results, in rebellious cases, which would not be obtained by single massive doses of any one alone. It also permits one to continue treatment for several weeks. By giving one cgm. of sparteine four to five times a day, the effects begin to be felt after twenty-four hours. As with digitalis an increase of arterial pressure precedes the diuresis. Sometimes a diminution of the pulse rate has been observed where it was accelerated from some pathological cause, but the slowing as remarked after digitalis, has not been observed. It may also be employed in subcutaneous injections, for injections of a 2:100 solution cause neither pain nor inflammation. Its effect upon the pulse is apparent after a few minutes. The quantity of albumen may also diminish after its use, even to complete disappearance. This diminution is real and not apparent from dilution of the urine.

A DIURETIC IN CARDIAC AND RENAL DROPSY.

In *La Riforma Medica*, 1893, IV, No. 25, as a diuretic in cardiac and renal dropsy, the following formula is warmly recommended:

℞ Fl. Extr. jalap
Fl. Extr. squillæ.....ää 15 gms. (℥iv).
" jaborandi..... 30 " (℥j).
" digitalis,.....gtts. xxx
Nitrate of potash..... 20 " (℥v).
Angelica wine..... 60 " (℥ij).
A tablespoonful every three hours.

CHRONIC RHEUMATIC THROAT DISEASES.

Dr. A. Hecht (*Wiener Medizinische Presse*, No. 1, 1894), directs attention to the existence of chronic rheumatic throat diseases and records such a case. A woman of twenty-five years, had suffered or two and a half months, from difficultyf n swallowing, which however, was noti constant. In the morning she could eat her breakfast without pain but when she worked the whole day in the field or was exposed to cold weather pain increased

*In charge of the translator, F. H. Pritchard, A. M., M. D.

considerably. The pain was not always of the same intensity and changed about, now being on the right and then on the left side. Examination of the throat and larynx revealed nothing and hysteria could be excluded. She also complained of pain in the muscles of the back of the neck, and the lateral surfaces of the thyroid cartilage were also sensitive to pressure. As the pain was complained of in the one or the other side the corresponding portion of the faucial arch was painful and reddened. Salicylic acid yielded no results. The disease was first described by Fletcher Ingals, and its characteristic feature is pain in the small muscles and the connective tissue between them and the cartilage, radiating from here to the clavicles. In most cases the pain does not extend over these bounds, but is limited to special parts, principally the posterior arch of the palate, the hyoid bone, especially its large cornua and lateral surfaces. The pain was intermittent and quite severe during changes of weather. On pressure painful points could be made out, degultition was most always, and speaking sometimes, painful. The back and sides of the neck were also occasionally affected. Locally there was more or less redness. Treatment of this obstinate disease is to be directed to the diathesis. Internally salol and the salicylate of soda are to be employed, while locally the following formula is of service:

℞ Muriate of morphine.....25 cgms. (grs. iv).
Carbolic acid
Tannic Acid.....āā 2 gms (gtts. xxx.).
Glycerine,
Distilled water.....āā 15 " (℥iv).

To be applied locally every two or three days.

He effected a cure, in his case, by these means.

PITYRIASIS OF THE EARS AND ITS TREATMENT.

Dr. Albespy (*La Semaine Medicale*, No. 66, 1893), calls attention to this rare disease. It is a desquamating dermatitis of the external auricle and the outer auditory meatus. There is slight desquamation; it is rough to touch, as though the ear had been frozen. Cerumen is no longer formed. The whitish or grayish scales are thicker at the centre than at the periphery and may accumulate in the meatus in the form of a plug. Subjectively the patients complain of itching, roaring in the ears, difficult hearing, a sensation of warmth in the ear, and sometimes of facial neuralgia, from irritation of the endings of the trigeminus in the external ear. It might be confused with the affection described by Wreden as keratitis obturans or seborrhoeic eczema. In the former the disease affects chiefly the deeper portions of the external ear, and with the latter there are vesicles secreting moisture. In pityriasis, the scales on the inner surface present the characteristic streak and it is not observed before the twentieth year. It is due to extension of the disease from the hairy scalp. The hairs in the meatus should be either extracted or cut off and the scales removed by a luke-warm boric acid solution. A pledget of cotton, dipped into a five per cent. solution of nitrate of silver, is then introduced into the ear and left there for twenty-four hours. After this is removed the underlying skin is found to be red but not bleeding. This tamponade is continued until desquamtion no longer takes place, and the walls have become smooth. This once attained, tampons dipped in the following are employed:

℞ Salicylic acid.....3 gms. (grs. xlv).
Canada balsam.....1 " (gtts. xv).
Collodion.....16 " (℥iv).

Under the influence of these tampons, renewed every four to five days, the redness disappears and the epidermis gradually regenerates. Treatment is finished by insufflations of air. Internally one may administer preparations of arsenic.

TREATMENT OF CONDYLOMATA.

Dr. Gemy (*Riforma Medica*, No. 22, iv., 1893) recommends where the removal of acuminate condylomata is impossible, the local application of an astringent powder consisting of equal parts of salicylic acid and powdered sabina. Before its application the affected parts should first be energetically bathed with warm water, to which about six per cent. of Van Swieten's solution has been added. After the local bath, dry them carefully with sublimated cotton before application of the astringent powder. He regards the acuminate condylomata as the product of a coccidium.

PEROXIDE OF HYDROGEN IN STOMATITIS.

Dr. Boennecken (*Wiener Medizinische Presse*, No. 4, 1894) recommends the

peroxide of hydrogen very warmly in the treatment of stomatitis. It will immediately prevent, in a moderately low per cent. solution, development of micro-organisms and has the advantage of not irritating the mucous membranes. A two to three per cent. solution generally suffices, for even if greatly diluted, it possesses strong antiseptic qualities; even a 1:20000 solution, hindering the development of the micro-organisms of putrefaction. If one have a patient with stomatitis, irrigate the mouth with a two per cent. solution for a few minutes and the former penetrating odor will have disappeared. After twenty-four hours use the purulent coating on the ulcers of the edges of the gums will have been cast off, and in forty-eight hours they will have begun to cover with a layer of epithelium. In five to six days even severe cases may be caused to heal.

ICHTHYOL IN DISEASES OF THE GENITO-URINARY TRACT.

Dr. Lohnstein (*Allgemeine Med. Central Zeitung*, No. 103, 1893) has employed ichthyol in genito-urinary affections, and comes to the following conclusions:

1. Ichthyol is an excellent remedy in acute urethritis, in a ½ to two per cent. solution in warm injections, and even in cases where the mucous membrane is especially irritable.

2. In subacute anterior urethritis and above all, in superficial circumscribed affections, it renders excellent service if it can be applied locally through the endoscope.

3. In infiltrating forms of chronic urethritis it is inactive, but on the contrary, it will be of value if alternated with mechanical measures of treatment.

4. In prostatitis, in the form of suppositories, in doses of three to five dgms. (five to seven grains) it removes the inflammatory and irritative phenomena.

5. In pyelitis and nephritis it exerts no beneficial action.

DANGERS OF COCAINE SALVES.

In the *Medinicische Neuigkeiten*, (No. 2, 1894) it is stated that a salve or solution of cocaine, even of two per cent., if applied to the breasts of nursing women, will produce erection of the nipple and, what is worse, a suppression of the milk. This suppression is only temporary and disappears after discontinuence of the drug, yet it seems advisable to warn against employing cocaine in the treatment of fissures of the breast in nursing women.

ANTISEPSIS OF FISSURES OF THE NIPPLE.

Dr. Lepage (*La France Médicale*, No. 4, 1894) claims that the prophylactic treatment of fissures of the nipple is almost an illusion, but it is possible in abscesses of the breast. Compresses, wet with a saturated solution of boric acid, are valuable agents in prevention of mammary abscesses, if they be only continuously applied. He recommends the following solution:

℞ Sterilized water.....450 gms (℥xiv)
Glycerine.....500 gms (℥xvij)
Alcohol.....50 gms (℥jss)
Biniodide of mercury....10-20 dgms (grs. jss-iijj)

Since this solution has been employed at the Maternity of Baudelocque, in Paris, the morbidity of nursing mothers has greatly decreased and the health of the children also has been in general improved, as the mothers suffer less and nurse better and more frequently.

TREATMENT OF NEURALGIA.

Prof. Dujardin-Beaumetz (*Rivista Clinica Terapeutica*, No. 12, 1893) advises the following treatment of neuralgia:

Administration of antithermic and analgesic remedies. In hemicrania, antipyrine is to be preferred, while in pains from compression, lightning-like pains and dental neuralgia, acetanilid is the best remedy. In pure neuralgia exalgine is preferred by him. In pains of neuropathic origin phenacetine acts best. Antipyrine is prescribed in daily doses of one to four grams (fifteen grains to one drachm.) Acetanilid is administered in a daily dose of twenty-two grains in three powders. Exalgine is best given in the following formula:

℞ Exalgine,.....2. 50 gms. (grs. xxxvij).
Tinct. of Melissa,..... 10 gms. (℥ijss).
Syrup of Orange Peel,.....150 gms. (℥v).
A soupspoonful morning and evening.

Phenacetine is administered in single doses of seven to fifteen grains, of which two to three are taken in twenty-four hours.

SELECTED.

MALPRACTICE AS DEFINED BY LAW.*

The following extracts are taken from the official report of the address on "Malpractice with Reference to the Legal and Medical Professions." They present an interesting definition of the relations of the professions of law and medicine, and of the responsibility which both bear to the public:

IMPLIED OBLIGATIONS OF THE PROFESSIONS.

The obligation of the two professions is the same. Physicians, surgeons, dentists, druggists and lawyers, by holding themselves out to the world as such, impliedly contract that they possess the reasonable and ordinary qualifications of their profession, and are consequently under a duty to exercise reasonable and ordinary care, skill and diligence toward those who employ them. The world has not time to inquire into the proficiency of every professional man; hence, it presumes him to be furnished with that amount of skill which he is under obligation, by virtue of his calling, to possess. It may and does vary widely among men, but it must at least be sufficient to entitle him to a recognized place among his own fraternity. If, therefore, by illegally assuming a title, or assuming one he is incompetent to fill, he holds himself out as a practitioner of any science, when he does not possess the required qualifications, and induces the public to employ him, he is a wrongdoer *ab initio*, and any person injured by his performances has an action against him.

The courts have ruled that no attorney can be held to infallibility of judgment or to a warranty of the result of his efforts. Attorneys do not profess to know all the law or to be incapable of error or mistakes in applying it to the facts of every case, as even the most skillful of the profession. What he is responsible for is ordinary skill, diligence and care, having reference to the nature of the business he undertakes to do, and for any failure to exercise these, an action may be maintained by his client against him.

*Delivered before the Society of Medical Jurisprudence at the Academy of Medicine, November 13, 1893, by Hon. David McAdam, Judge of the New York Superior Court.

MALPRACTICE DEFINED.

Malpractice is bad or unskillful practice in a physician or other professional person whereby injury is caused. Blackstone says concerning it: "For it hath been solemnly resolved that malpraxis is a great misdemeanor and offence at common law, whether it be for curiosity and experiment or by neglect, because it breaks the trust which the party had placed in his physician, and tends to the patient's destruction" (3 Black. Com., 122).

Malpractice may be divided into three parts—1. Wilful; 2. Negligent; 3. Ignorant.

Wilful takes place when the physician purposely administers medicines or performs an operation which he knows and expects will result in damage or death to the individual under his care.

Negligent malpractice comprehends those cases where there is no criminal or dishonest object, and includes gross negligence of that attention which the situation of the patient requires.

Ignorant malpractice is the administration of treatment calculated to do injury, and which does harm, and that which a scientific medical man would know is not proper.

Malpractice can only be affirmed where the physician has set aside established principles and neglected to employ means which are universally held to be necessary in the given case. If medical men fail to discharge their duty in a skillful and attentive manner, the law will grant redress to the party injured by their neglect or ignorance, in the form of an action on the case, as for a tortious misconduct, and no fees can be recovered.

TESTS OF RESPONSIBILITY.

From the leading cases the following propositions may be extracted:

1. If the defendant acted honestly and used his best skill to cure, and it does not appear that he thrust himself in the place of a competent person, it makes no difference whether he was at the time a regular physician or surgeon or not.

2. To constitute guilt, gross ignorance or negligence must be proved.

3. A defendant who, with competent knowledge, makes a mistake in a remedy is not answerable; but it is otherwise when a violent remedy, shown to have occasioned death, is administered by a person grossly ignorant, but with average capacity, in which case malice is presumed.

4. Where competent medical aid can be had the application of violent remedies by an ignorant person, though with the best of motives, involves him in criminal responsibility.

5. Express malice, or an intent to commit a personal or social wrong, always makes the practitioner criminally responsible. As physic and salves were in use before physicians and surgeons, the common law provided that if a party employ a person as a surgeon, knowing him not to be one, he had no civil remedy; yet if a person of no medical education, in a case where professional aid might be obtained, undertakes to administer medicine which may have a dangerous effect, and thereby occasions death, such person is guilty of manslaughter.

Many of these matters are now regulated by statutes, which prescribe the rights and liabilities of medical men, and those who assume to practice as such without the necessary credentails. These provisions in the different states are, of course, controlling. In an action against a physician for malpractice the question is not whether he is skilled in his profession, but whether he treated this particular case properly. The question of skill in his profession is material, but not controlling, the main contention being whether he treated the case in hand according to scientific principles.

The physician has no exclusive privilege of absolution from wrong-doing. He derives none from his profession, and becomes responsible, therefore, for any damages to the health or for any disfigurement of the person of a patient, which are directly traceable to his want of skill or diligence.

WHAT CONSTITUTES SKILL AND DILIGENCE BY MEDICAL MEN.

The reasonable and ordinary care, skill and diligence which the law requires of physicians and surgeons is such as physicians and surgeons, in the same general neighborhood, in the same general line of practice, ordinarily have and exercise in like cases. In a Pennsylvania case a surgeon was sued for alleged malpractice in the setting and treatment of a broken limb. The court charged the jury "that the defendant was bound to bring to his aid the skill necessary for a surgeon to set the leg so as to make it straight and of equal length with the other, when healed; and if he did not he was accountable in damages, just as a stonemason or bricklayer would be in building a wall of poor materials, and the wall fell down; or if they built a chimney and it would smoke by reason of want of skill in its construction. They could not only recover for building, but would be accountable for damages." This ruling was reversed no appeal, and the Appellate Court laid down this rule:—

"The implied contract of a physician and surgeon is not to cure—to restore a limb to its natural perfectness—but to treat the case with diligence and skill. The fracture may be so complicated that no skill vouchsafed to man can restore original straightness and length; or the patient may, by wilful disregard of the surgeon's direction, impair the effect of the best conceived measures. He deals not with insensate matter, like the stonemason or bricklayer, who can choose their materials and adjust them according to mathematical lines; but he has a suffering human being to treat, a nervous system to tranquillize and a will to regulate and control."

The true measures of skill required is that ordinarily exercised in the profession by the members thereof as a body—that is the average of the reasonable skill and diligence ordinarily exercised by the profession as a whole, not that exercised by the thoroughly educated nor well educated.

The medical man must not only possess the required skill, but must exercise it in the case at hand, and in the manner best calculated to bring about beneficial results.

DIFFERENT SCHOOLS OF MEDICINE.

The law does not favor any particular school of medicine, and the treatment of a physician is to be tested by the principles of that school to which he belongs.

Homeopathy and allopathy now stand on the same footing before the law.

To constitute a school of medicine under this rule, it must have established rules of practice for the guidance of all its members, as respects principles, diagnoses and remedies, which each member is supposed to observe in any given case. If the practitioner proceeds without such a system of fixed principles or formulated rules, he does not belong to "a school of medicine," and he is held to the duty of treating his patient with the ordinary skill and knowledge of physicians in good standing who practice in his vicinity.

SKILL REQUIRED OF EMPIRICS.

One not a regular physician, but holding himself out as capable of treating particular maladies, is bound to exercise the skill and care of the general physician in the treatment of such maladies. This upon the ground that the law makes no allowance for quackery; it demands qualifications in the profsesion, and will require empirics to make their professions of skill and ability good, or answer for the consequences. The same rule has been applied to clairvoyants. For unskilfull treatment the attendant is liable.

As Lord Ellenborough said: The farrier who undertakes to cure my horse must have common skill, at least, in his business, and that is implied in his undertaking. * * * A surgeon would be liable for ignorance, and justly responsible for damages, for having adventured upon the exercise of a profession without the ordinary qualifications of skill, to the injury of a patient.

It is sufficient to sustain a verdict that the party held himself out as a physician. Issuing circulars signed with his name having "Dr." prefixed is enough.

LIABILITY OF VOLUNTEERS.

A person who, without special qualifications, volunteers to attend the sick can, at most, be only required to exercise the skill and diligence usually bestowed by persons of like qualifications under like circumstances. Thus (to put a case borrowed from Mohammedan law), "If a person will knowingly employ a common mat maker to weave or embroider a fine carpet he may impute the bad workmanship to his own folly." In other words, a patient is generally entitled to receive that which you lead him to believe he may expect.

EFFECT OF LOCALITY UPON STANDARD OF SKILL.

As the law discriminates between the metropolitan and rural bar, so it distinguishes between the city and country physician, by providing that the locality in which a physician or surgeon practices is to be taken into account. One practicing in a small town or sparsely settled country district is not to be expected to exercise the care and skill of one residing in, and having the opportunities afforded by, a large city. He is bound to exercise the average degree of skill possessed by the profession in such localities generally.

The term "rural practitioner" here used, refers to those who practice in small towns away from the facilities of the "metropolitan practitioner," and not to those in populous places near the cities where the opportunities of the different practitioners are equal. Negligence is the absence of care, according to the circumstances; and the law, exacting as it is in many matters, does not require impossibilities, nor hold people to implied responsibilities, which, in the nature of things, they never intended to assume. The implied obligation in this regard may be said to be that which both parties must have understood, but did not deem necessary to express.

STATUS OF SPECIALISTS.

A professional man who devotes himself to a particular branch of his calling, legal, medical or surgical, and holds himself out as a specialist therein, impliedly undertakes that he possesses superior knowledge and ability in respect thereto as well as its technics, and the degree of skill demanded of him must, in the nature of things, conform to the grandeur of his representations, express or implied.

An oculist may be held liable for failure to exercise as high a degree of skill as other surgeons of that specialty exercise when he holds himself out as possessing such skill.

NO IMPLIED WARRANTY TO CURE.

We have found that the lawyer neither guarantees the success of his proceedings in a suit nor the soundness of his opinions. The same rule applies to the medical man.

There is no implied warranty on his part that he will effect a cure. Failure of a surgeon to accomplish the desired result

does not of itself render him liable for malpractice; the test is whether he has exercised reasonable skill and attention in his treatment. His obligations, like that of the lawyer, is merely to bring to the case in hand the average skill of the profession in the vicinity, with the care commensurate to its importance and the consequences likely to follow.

ERRORS OF JUDGMENT.

Medical men, like lawyers, are not liable for mere errors of judgment, unless it be so gross as to be inconsistent with reasonable care, skill and diligence.

Thus in Fisher *vs.* Nicholls, (2 Ill. App., 484), the appellant asked the court to instruct the jury, "that if they believe the defendants used ordinary skill and care in the treatment of the plaintiff's hand, and made a mistake in judgment, then the defendants are not liable for the result of such mistakes under the law." This instruction the court refused to give as asked, but gave it with the following modification: "Provided the defendants, in making up their judgment, did not disregard the well settled rules and principles of medical science." This request as modified, conforms to the rule already laid down concerning the skill to be bestowed by the medical man to his patient.

The burden of proof is upon the plaintiff in all actions for malpractice to show that there was a want of due care, skill and diligence, and that the injury was the direct result of such want of care, skill and diligence.

The mere failure to affect a cure raises no presumption of a want of care or skill.

A physician and surgeon engages to bring to the treatment of his patient care, skill and knowledge, and while, when exercising these, he is not responsible for mere errors in judgment, he is chargeable with knowledge of the probable consequence of an injury, or of neglect in his treatment or unskillful treatment.

ERRORS IN DIAGNOSIS.

An error in diagnosis is sure to be followed by improper treatment, and is, therefore, of importance.

The courts have held that the right of a physician to be compensated for his services depends upon the diligent exercise under his employment of the skill which commonly pertains to his profession; that the rule applies as well to the ascertainment of the patient's disease as to its treatment, and the fact that the physician erred as to the disease and treated the patient for one he did not have, will not defeat the physician of compensation.

A surgeon possessed of the requisite knowledge is not responsible for errors of judgment or mistakes in a case in which there are reasonable grounds of doubt and difference of opinion, but is chargeable only with error arising from want or failure to exercise reasonable skill and diligence.

In Gedney vs. Ringsley (41 St. R.; 794 s. c., 16 Supplt, 792), it appeared that the plaintiff injured her arm, and defendant (a surgeon) examined it, but discovered nothing more serious than a bad bruise. In fact, the arm was fractured, and by reason of the delay in discovering the fracture the injury became irreparable. In an action for damages the defendant's evidence tended to show that the arm was so swollen that a complete examination could not be made, and that plaintiff told him not to call again until she sent for him. Held, that if this were found to be true, no recovery could be had.

CONSENT TO SURGICAL OPERATIONS.

If physicians attending a woman deem it necessary, for the preservation and prolongation of her life, to perform an operation, they are justified in doing so if she consents, whether her husband consents or not. As a rule, anything warranted by good practice and not objected to by the patient is authorized. This is evidenced by the numerous operations constantly performed in efforts to save or prolong life, some of which result disastrously, and yet no one would impute either malpractice or manslaughter. These are more than offset by the numerous, and sometimes marvellous, results of a beneficial character brought about by similar operations upon others.

GRATUITOUS SERVICES.

The mere fact that a physician or surgeon renders services gratuitously does not affect his duty to exercise reasonable and ordinary care, skill and diligence.

Treating a patient gratuitously gives no license to experiment on him or to do any negligent act toward him. He puts him-

self in professional hands, and has the right to expect medical treatment according to the ability of the physician or surgeon in charge. "It is the duty of every artificer to exercise his art rightly and truly as he ought." This is peculiarly the duty of professional practitioners, to whom the highest interests of man are often necessarily intrusted. The law has no allowance for quackery. It demands qualification in the profession practiced, not extraordinary skill, such as belongs only to a few men of rare genius and endownments, but that degree which ordinarily characterizes the profession.

A physician employed by a city to treat patients in an almshouse will not be relieved from liability to a patient therein for failure to exercise ordinary care and skill, although he is paid by the city and not by the patient.

CONSULTATION WITH OTHERS.

If a physician or surgeon is not competent, or feels that he is not competent, to treat a case properly, it is his duty to recommend the employment of another, but if he is competent and so considers himself, and is in doubt concerning the case, he should use his best judgment as to consultation with other physicians or surgeons. He cannot bring in consulting physicians or surgeons without the consent of the patient, so as to obligate him to pay their fees, unless, perhaps in a very extreme case, where dire necessity furnishes the authority.

ADOPTION OF LATEST METHODS AND APPLIANCES.

Physicians and surgeons should keep up with the latest advance in medical science, and use the latest and most improved methods and appliances, having regard to the general practice of the profession in the locality where they practice, and it is a question for the jury to decide from all the circumstances of the case whether the physician or surgeon has fulfilled his duty in that respect.

If they depart from generally approved methods of practice, and the patient suffers an injury thereby, the medical practitioner will be held liable, no matter how honest his intentions or expectations were of benefit to the patient.

The failure to use the most improved methods is not conclusive evidence of negligence, if those used were reasonably safe, and such as were employed by other reputable practitioners in the neighborhood, no liability is incurred. Yet it is advisable for all to recognize the progress of science and keep abreast of it to avoid charges which are easily made and are lasting in their effects, though unwarrantable by the facts.

PARTNERSHIP LIABILITY.

All the partners are liable for malpractice by any member of the firm. The ground of liability is, the contractual relation, for the gist of the action is its breach either by malfeasance or misfeasance.

It will not do for an eminent practitioner to associate himself in business with a "quack," and after holding him out as a competent practitioner, impose upon the public and then be allowed to avoid the responsibility. Many people might be induced to receive treatment from the partner of a well-known practitioner, who would never have thought of employing him, but for the partnership relation and the holding out of the individual as one worthy of such association. While malpractice is a tortious act, the true source of liability is the contractual relations, which is with the firm, and it must answer for its breach. In other words, it must take the burdens with the benefits.

This doctrine of privity of contract does not confine the remedy to the employer; for if a surgeon treat a child unskillfully, he will be liable to the child, even though the parent contracted with the surgeon.

CONTRIBUTORY NEGLIGENCE OF PATIENT.

If the patient in any way contributes to the injury by his fault or neglect, he cannot recover for malpractice by the physician or surgeon.

If the patient by refusing to adopt the remedies or comply with the directions of physicians, frustrates, or defeats the endeavors of the physician, or if he aggravates the case by his misconduct, he cannot charge to the physician the consequences due directly to himself.

When a liability for malpractice is established, proof that the patient, after the liability was incurred, disobeyed the orders of the physician, and so aggravated the injury, does not discharge the liability; it simply goes in mitigation for damages.

DOCTORS MUST KEEP SOBER.

There is no law except that of propriety, which requires a lawyer to remain sober; but an express statute enjoins this upon the medical fraternity in these words: "A physician or surgeon, or persons practicing as such, who, being in a state of intoxication, administers any poison, drug or medicine, or does any other act, as a physician or surgeon, to another person by which the life of the latter is endangered or his health seriously affected, is guilty of a misdemeanor." Another section provides: "A physician or surgoon, or persons practicing as such, who being in a state of intoxication, without a design to effect death, administers a poisonous drug or medicine, or does any other act, as a physician or surgeon, to another person which produces the death of the latter is guilty of manslaughter in the second degree." Medical men who decline to drink on account of these admonitions may be looked upon, therefore, as models of "statuary sobriety."

DOCTORS SHOULD BE LAWYERS, AND VICE VERSA.

Blackstone, in his "Commentaries," says: "The science of medical jurisprudence has of late years attained to special prominence and importance; inasmuch, also, as the evidence of skilled witnesses is justly deemed entitled of much weight, some general acquaintance with legal principles and the nature of criminal offenses is suggested for those professing the faculty of physic as desirable and useful." Apropos to this let us add the suggestion that inasmuch as there are many cases of contested wills in which the testamentary capacity of the testator is called in question, and many cases of especial prominence and importance wherein the mental condition of the principal party is directly in issue, some general acquaintance with the medical science, and the nature, cause and effects of such things, is suggested for those professing the profession of the law as not only desirable and useful, but necessary to the proper presentation and protection of the rights of their client, and the proper cross examination of the medical experts. The one would seem to follow the other as the night the day.

QUACKS AND SHYSTERS.

To call a person lawfully practicing as a physician a "quack" is in effect charging him with a want of the necessary knowledge and training to practice the system of medicine he undertakes to bestow. In other words, a "quack" is an ignorant pretender to knowledge he does not possess. The term "shyster" has practically the same meaning in the legal profession. Thus, in Wakley vs. Healy, 7 C. B., 591, it was held that publishing in writing of a barrister, that he was "a quack lawyer and imposter" is actionable.

The word "shyster"—defined by Webster to mean a trickish knave, one who carries on any business, especially a legal business, in a dishonest way—is evidently capable of having reference to the professional character and standing of a lawyer.

In an action of libel it was said that the designation "pettifogging shyster" must mean an unscrupulous practitioner who disgraces his profession by doing mean work, and resorts to sharp practice to do it.

It would be a good thing for the public, as well as for the two learned professions, if the ignorant pretenders referred to were obliged to designate themselves "quack doctors" and "shyster lawyers" upon their signs and cards. The government, during the war, stamped upon every bogus greenback it came across the word "counterfeit." These cabalistic marks prevented imposition.

The suggestion made, if carried out, would save the good name of the legal and medical professions from much of the abuse they now receive.

LEGAL POSITION OF DENTISTS.

The teeth and the gums of the mouth are important parts of the human body. The pulling of teeth is an art or profession akin to surgery. Indeed those engaged in it are known as "surgeon dentists," and the same degree of skill is exacted of them as of the other professional men, and, substantially, the same rules govern their operations.

In Keily vs. Colton, the defendant, who was a dentist, undertook to extract a tooth while the patient was under the influence of an anæsthetic called "laughing gas." In extracting the tooth the forceps slipped and part of the tooth went down the plaintiff's throat, causing coughing and

vomiting, which continued at intervals for about four weeks, at the end of which time, during one of these attacks of coughing, the tooth was thrown up and relief followed. Held, that while the patient was under the influence of an anæsthetic, which deprived him of the use of his faculties, the defendant was required to use the highest professional skill and diligence to avoid probable dangers, and that the circumstances presented were sufficient to warrant the finding by the jury of negligence.

LIABILITY OF DRUGGISTS.

The rule of libility of a druggist who delivers a deleterious drug to one who calls for a harmless one is the same as that which governs the liability of professional persons whose work requires special knowledge and skill, and a person is not legally responsible for any unintentional consequential injury resulting from a lawful act when the failure to exercise due and proper care cannot be imputed to him.

An action against a druggist for an error of his clerk in compounding a prescription rests upon negligence, and a right of recovery does not arise from the mere fact that a drug given was not included in such a prescription, as the defendent is entitled to have the question of the competency of his clerk and the exercise of due and proper care on his part submitted to the jury.

In such case, when the defendant assumes to fill the prescription, undertakes that he possesses the ordinary skill of a druggist or apothecary, and that he will exercise due and proper care in putting up the medicine required, the degree of care being proportionate to the gravity of the injury that would necessarily result from a want of care, the failure to exercise due and proper care is the only ground upon which a recovery can be had in such action.

One who is ignorant of the properties of a poisonous drug is liable to a criminal prosecution for a negligent sale or use thereof.

A druggist who grinds medicines in a mortar which has been used to grind poisons without properly cleansing it, is liable to one injured by means of such careless use. So of a druggist on shipboard who neglects cleansing drinking utensils after using them with poisonous substances. So of a druggist who sells morphine instead of quinine, which causes death.

A druggist who sells a deadly poison as a harmless medicine is liable, and one who labels a deadly poison as a harmless drug is liable for all consequences.

LIABILITY OF CORPORATE INSTITUTIONS.

While the attending physician may be liable for malpractice it does not follow that counties are in reference to poorhouses, nor hospital corporations or proprietors in reference to their institutions. Thus, in Harris vs. Woman's Hospital (27 Abb. N. C., 37; s. c., 39, St. R., 98; 14 Suppt., 881), it was held that a public charitable hospital is not liable for injuries sustained by an inmate from the actual negligence of a medical attendant, if it is shown that the institution exercised due care in the selection.

REQUIREMENTS OF EVIDENCE.

Whether a physician has in a given case adopted the proper treatement is a question on which the opinions of medical men of the same school may be received in evidence, and they may state whether, in their opinion, the treatment was proper or not. In other words, whether it was in conformity to the practice of the profession.

A defendant may state what, from his study and experience, he deems proper treatment of the case in question, but not what success he had in other cases. The chief reliance in malpractice cases must be medical testimony, which, in the nature of things, comes from other members of the profession, and is of the character known as the testimony of experts, and consists of opinions founded on facts, observations and the like.

An expert cannot be required to pass upon or draw inferences from the evidence given by another witness.

An expert may be qualified by study without practice, or by practice without study. But mere observation without either is insufficient. Expert evidence, though useful as a guide, depends upon its value as found by the Court or jury, and is never conclusive, as the Court or jury may apply their own experience and good judgement to the subject.—*R. I. Med. Sci. Mo.*

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SATURDAY, MARCH 17, 1894.

EDITORIAL.

INTERNATIONAL SANITARY CONFERENCE.

The Sanitary Conference is a remarkable demonstration of the importance in public affairs achieved by modern medical science. The Conference, now being held in Paris, is not a gathering of reformers to propagate a pet theory, but is a meeting of medical experts, who are the official representatives of a number of governments. It is not the first assemblage of sanitary experts seeking the same end, as similar conferences had previously been held at Constantinople, Rome, Venice, and more recently at Dresden; but the present conference is peculiar in the latitude of its powers and in the authority conferred upon it by the participating governments. The object sought by such conferences has been measures for preventing the spread of infectious and contagious diseases, especially those of an epidemic form; and the object of the present meeting is to formulate and recommend measures which can be universally enforced to prevent the spread of such diseases, with special present reference to cholera.

At the Dresden conference it was decided that whenever cholera broke out in any country, other nationalities should be notified of the fact at once. This rule, however, has not been observed, as is evidenced by the strenuous efforts of the French authorities to conceal the prevalence of cholera at Marseilles last year. In February, 1893, there were 102 deaths from cholera at Marseilles and foreign governments were not duly warned. Again the epidemic broke out in May and lasted during the summer months causing 767 deaths, and yet nothing was done. That the United States was spared an invasion of cholera from this source, must be attributed to the very efficient enforcement of the provisions of the new national quarantine law, so ably carried out under the direction of Surgeon-General Wyman, U. S. M. H. S.

The Paris conference is composed of the representatives of seventeen different nations, including the United States, the principal European powers, British India, Persia and Turkey.

Experience has shown the futility of attempting to prevent the spread of cholera and at the same time permit the sources of the epidemic to remain in full activity.

Much may be done by the enforcement of quarantine measures to mitigate the ravages of the epidemic, but to stamp out the disease requires the elimination of its starting point. The necessity of going to the root of the evil involves many questions not only of science, but diplomacy, and is especially difficult from the fact that it concerns the religious convictions of an immense proportion of the population of the Eastern world.

It is agreed that the principal centre from which cholera spreads in all directions, is Mecca, the Holy city of the Mohammedan. That Mecca is the objective point of pilgrimages from all portions of the Eastern world, accounts for the concentration of cholera in that city, brought there by pilgrims and carried from thence by returning pilgrims. A pilgrimage of Mecca is the religious ambition of every follower of the Prophet. To have accomplished such a pilgrimage assures the Mohammedan of religious distinction. To die in the effort to become Hadji, insures entrance to Paradise, and as the Mohammedan is a fatalist, neither death, nor hell, nor any other creature can dissuade him undertaking the trip to the Holy city.

To succeed in regulating these pilgrimages and enforcing the simple precautions necessary to prevent cholera reaching Mecca and spreading from thence over the entire world, without precipitating a terrible religious war, requires the active and constant cooperation of the Turkish and Persian governments. It will not be an easy matter to enlighten these governments and arouse them to continuous and intelligent action.

The success of the British government in anticipating and preventing the inevitable epidemic of cholera following the great Indian Fair at Hardwar, by the strictest enforcement of inspection, isolation and other sanitary measures, shows that the epidemic may be prevented, even at the start; and that too, without seriously interfering with the coming and going of the population. The suppression of cholera at Hardwar, will be of considerable aid in handling the situation at Mecca, not only by force of example but because the fair at Hardwar brought together people from all parts of India, the home of cholera, thus furnished a most effective centre for its propagation throughout the world and, because of the large number of Mohammedan residents of India, became the direct source of supply of cholera to Mecca.

Mr. Earnest Hart, in his articles on cholera, has given a most vivid presentation of the filthy and unsanitary conditions existing at Mecca, and of the inconceivably disgusting practices of the pilgrims in their efforts to secure holiness. And he has likewise shown that the difficulties of securing the proper sanitary conditions are spiritual rather than material, as the physical aspects of the locality present no mechanical obstacles.

In 1881, a quarantine station was opened on the island of Camaran, at the entrance of the Red . Sea. Curiously enough, cholera has been more prevalent since the opening of that station than it was before. For instance, there were epidemics in 1865, '66, '72 and '76, before the establishment of this station. Since then, cholera has been epidemic in 1881, '82, '83, '90, '91 and '93; or, during the twelve years preceding the establishment of this quarantine station for the pilgrims there were four epidemics of cholera at Mecca, and during the twelve years following its establishment, there have been six cholera epidemics. This fact, however, does not operate against the importance of establishing sanitary precautions, but it does most thoroughly demonstrate the criminal folly of making an image of science and worshiping it under the belief that it is a potent spirit.

It is to be hoped that the Paris conference will succeed in devising measures that will accomplish the desired end.

ABSTRACTS.

LEGAL REQUIREMENTS FOR THE PRACTICE OF MEDICINE IN THE UNITED STATES.

So many changes have been made in the legislation regulating the practice of medicine in this country during the past three years, that the Illinois State Board of Health will include, in its forthcoming Report on Medical Education, the text of all laws on this subject in force at the beginning of the present year in the several States and Territories of the United States, and in the provinces of the Dominion of Canada. From this forthcoming Report, through the courtesy of the Secretary of the Board, Dr. J. W. Scott, some data have been gathered which will be of interest to the spring crop of new graduates, and to medical men generally.

Of the six New England States, Maine, Massachusetts, New Hampshire and Rhode Island have no legal requirements for the practice of medicine. Connecticut has adopted a medical practice act which went into effect Oct. 1, 1863, and in Vermont the law requires the registry of a diploma indorsed by a Board of Medical Censors or of a certificate of satisfactory examination by one of these Boards.

Exclusive of the four States first named, the other States and Territories may be roughly grouped into the following three classes:

In Alabama, Arkansas, Florida, Maryland, Minnesota, Mississippi, New Jersey, New York (act of May 9, 1893), North Carolina, North Dakota, Pennsylvania (after March 1, 1894), South Dakota, Texas, Utah, Virginia and Washington, the diploma confers no right to practice and has no legal value, except, in some cases, to give its professor standing before an examining board. The right to practice in each of these sixteen States is determined by individual examination before boards of examiners created by law.

In California, Colorado, Connecticut (since October, 1893), Delaware, Illinois, Iowa, Kentucky, Louisiana, Missouri, Montana, Nebraska, New Mexico, Oklahoma, Oregon, Tennessee, Vermont and West Virgina, the diploma is subject to supervision of some designated body vested by law with authority to determine its validity as evidence of its possessor's qualifications for the practice of medicine. Failing the possession of such a recognized diploma, the right to practice may be acquired by passing a satisfactory examination.

In Arizona, Georgia, Idaho, Indiana, Kansas, Michigan, Nevada, Ohio, South Carolina (since the repeal of the Act of 1888), Wisconsin and Wyoming, the presentation of any kind of a diploma—provided only that it be from a "chartered" medical institution—is the sufficient warrant in law for country clerks, clerks of courts, registrars of deeds and similarly qualified judges of medical fitness to admit to practice.

Following is a résumé of the legal requirements for practice in each State and Territory of the United States, in force Jan. 1, 1894:

Alabama.—A certificate of successful examination by the State (or a county) Board of Medical Examiners. Diplomas confer no right to practice.

Arizona.—Registry, with a county recorder, of an unrevoked, uncancelled "diploma regularly issued by a medical college properly and lawfully organized under the laws of the State wherein said college shall be located."

Arkansas.—A certificate of successful examination by the State (or a county) Board of Medical Examiners. Diplomas confer no right to practice.

California.—A certificate issued on the diploma of a college in good standing or upon a successful examination by one of the State Boards of Medical Examiners—regular, homeopathic or eclectic.

Colorado.—Similar to California, except that there is but one State Board of Medical Examiners.

Connecticut.—A certificate of registration of the diploma of a college "recognized as reputable by one of the chartered medical societies of the State," regular, homeopathic, eclectic; or a certificate of satisfactory examination by a committee appointed for the purpose by the State Board Health.

Delaware.—A certificate based upon the registration of a diploma from "a respectable medical college," or upon "a full and impartial examination by the State Board of Medical Examiners."

District of Columbia.—Nominally the indorsement of a diploma, or an examination, by a committee of the District Medical Society; practically no requirement.

Florida.—A certificate of satisfactory examination by the State (or a district) Board of Medical Examiners. Diplomas confer no right to practice.

Georgia.—The registration of a diploma from any "incorporated medical college, medical school or university." The clerks of the Superior Courts are the sole judges of the diploma as evidence of fitness for medical practice.

Idaho.—The record of a diploma at a county seat.

Illinois.—A certificate issued by the State Board of Health upon the diploma of a legally chartered medical institution in good standing as determined by the Board, or upon a satisfactory examination by the Board.

Indiana.—The registration, in a county clerk's office, of a diploma "from some reputable medical college."

Indian Territory.—*a.* Cherokee Nation: An examination by the Board of Medical Examiners; *d.* Choctaw Mation: A certificate by the Board of Medical Examines; *c.* Creek Nation: Payment of $25 annually as a license fee.

Iowa.—Similar to Illinois.

Kansas.—The registry of a diploma from "some respectable school of medicine," or of a certificate of qualification from some State or county medical society.

Kentucky.—A certificate from the State Board of Health issued upon the "diploma of a reputable and legally chartered medical college."

Louisiana.—The record of a diploma from "any medical institution of credit and respectability" after indorsement by the State Board of Health.

Maine.—No legal requirement. In 1887 an act to regulate the practice of medicine was passed by the Legislature but was vetoed by the Governor.

Maryland.—A certificate issued upon a satisfactory examination by the State Board of Medical Examiners. Diplomas confer no right to practice.

Massachusetts.—No legal requirement.

Minnesota.—Similar to Maryland.

Mississippi.—Similar to Maryland—except that the examination is made and the certificate issued by the State Board of Health.

Missouri.—Similar to Illinois.

Montana.—Ten years of practice; a certificate upon the diploma of a college "in good standing," or upon an examination by the State Board of Medical Examiners.

Nebraska.—A certificate issued by the State Board of Health upon the diploma of "a legally chartered medical school or college in good standing," as defined in Section 8 of the Act of July, 1891.

Nevada.—The record of a diploma from "some regularly chartered medical school."

New Hampshire.—No legal requirement.

New Jersey.—A license issued upon a successful examination by the State Board of Medical Examiners. Diplomas confer no right to practice.

New Mexico.—A certificate upon the diploma of a legally chartered medical institution in good standing, or an examination by the Territorial Board of Medical Examiners.

New York.—A license issued upon a successful examination by one of the State Boards of Medical Examiners—regular, homeopathic, eclectic. Diplomas confer no right to practice.

North Carolina.—A license issued upon a successful examination by the State Board of Medical Examiners. Diplomas confer no right to practice.

North Dakota.—Similar to North Carolina.

Ohio.—The diploma of a respectable school of medicine, or a certificate of qualification from a State or county medical society.

Oklahoma.—A license issued by the Superintendent of Public Health upon a medical diploma or after examination.

Oregon.—A certificate on the diploma of a college "in good standing," or after examination by the State Board of Medical Examiners.

Pennsylvania.—A license issued after examination before one of the State Boards of Medical Examiners: Act of May 18, 1893; takes effect March 1, 1894. Diplomas will thereafter confer no right to practice.

Rhode Island.—No legal requirement.

South Carolina.—A certificate of verification of the diploma of a reputable medical college. An Act of December 24, 1890, abolished the State Board of Medical Examiners created by the Act of 1888 and under which the diploma conferred no right to practice.

South Dakota.—A license issued by the State Board of Health after examination. Diplomas confer no right to practice.

Tennessee.—A license on the diploma of a college "in good standing," or after examination by the State Board of Medical Examiners.

Texas.—A license issued after examination by a District Board of Medical Examiners. Diplomas confer no right to practice.

Utah.—A license issued by the Territorial Board of Medical Examiners after examination. Diplomas confer no right to practice.

Vermont.—The registry of a diploma indorsed by one of the Boards of Medical Censors, or a certificate of examination by one of the Boards.

Virginia.—A license issued after examination by the State Board of Medical Examiners. Diplomas confer no right to practice.

Washington.—Similar to Virginia.

West Virginia.—A license on the diploma of a reputable college, or after examination by the State Board of Health.

Wisconsin.—The indorsement of a medical diploma by the censors of either of the State or County medical societies.

Wyoming.—The record of a diploma with a registrar of deeds.—*J. A. M. A.*

A STUDY OF TRIONAL.

Dr. Beyer (*Archiv. fur Psychiatric*, Bd. XXV. Hft. 2), says:

Among the new hypnotics, trional, since its first therapeutic employment by Barth and Rumpel in the Hamburg Hospital and by Schultze in the Psychiatric clinic at Boon, has constantly gained ground in the estimation of the physicians, all of whom praise its hypnotic properties, although as yet undecided in regard to the more special questions as to its application. Supported by the numerous observations made for a long time at the Psychiatric Clinic of Strassbourg, including personal observations in sixty cases in the female division, it is now possible to sift the material collected up to this time in eight publications, so as to determine the special and general indications for the use of trional.

When administered in sufficient doses, trional almost always produces a feeling of sleepiness, which soon results in quiet, dreamless refreshing sleep. The full effect usually manifests itself in the course of half an hour. It is prevented by bodily pains, noises in the neighborhood, and even light—the same conditions which are also apt to interfere with normal sleep. Patients who have already fallen asleep are easily aroused by noises in the vicinity. Horvath attributes his bad results to the crowded state of his hospital wards at Buda Pesth. The duration of the sleep seems to depend, to a certain extent, upon the size of the dose, at any rate, it was found that while smaller doses act rapidly and effectively, the effects persist for only a few hours. After waking the patients feel refreshed, although the disease from which they suffer is not influenced by the hypnotic. If the dose is accurately estimated no after effects appear. The isolated observations of some authors that a single evening dose exerts an influence on the second night could not be confirmed in our cases of mental diseases. On the contrary, our experience like that of others has taught us, that discontinuance of the remedy, whether intentionally or in consequence of refusal of the patient to take it, or its secret replacement by some indifferent powder, or frequently diminution of the dose, had an unfavorable effect upon the sleep. A slight cumulative action such as has been noted among others by Raimondi and Mariottini seems, however, to exist. Frequently the first dose prescribed fails to act, while if repeated in increased quantity on the following evening it exerts its full effect, and during continued use of the remedy it was often possible to reduce the dose, provided that there was no change in the symptoms.

We can, therefore, coincide with Bries' suggestion to begin with a dose somewhat more than the medium size, and then soon to diminish it.

Habituatian to the remedy has not been observed thus far and we found ourselves necessitated to increase the dose only under certain circumstances, especially excitement, as for instance at the time of the menses. Its withdrawal after protracted use has never had any other consequences than return of nocturnal restlessness, if the patient did not regain normal sleep by reason of the occurrence of recovery.

Various authors have attempted to employ trional as a sedative remedy during the day, but the results have not been brilliant. Schultz obtained a moderatively satisfactory result only when instead of several small doses administered morning and evening he gave 2 grms, and Shaefer likewise failed to accomplish anything with 0.5 grm., given four times daily. Boettiger alone obtained good effects from this method, and demands further experiments with fractional doses. In view of what we have observed, although but in a few cases we would admonish against this method of administration.

Trional is a hypnotic and not a sedative. Small doses are ineffective, large ones induce sleep, or a desire for sleep, which is counteracted by day light, unquiet surroundings, etc., so that a very disagreeable condition results. As far as we can see, the good results in this direction have been obtained only in the case of paralytic or demented subjects who are oblivious to such disturbing influences.

As a sedative we therefore always prefer opium, and have found that its use in conjunction with that of trional affords excellent results, if opium is given thrice daily and trional in the evening. In cases where bodily pains interfered with sleep we observed similar success by combination with morphine, which alone would have had a sedative, but not hypnotic effect. When, however, the pains have been controlled by morphine and then trional was administered, a restful sleep ensued.

As regards disagreeable or injurious after effects, we have not noted these after prolonged use, but after employment of large doses and somewhat more frequently than most authors. If a patient after waking does not at once feel refreshed, but complains of drowsiness, a tired feeling of the eyes, etc., this serves as the first warning to us that the quantity of trional prescribed is too large. Furthermore, we observed in several instances marked drowsiness and very noticeable vertigo and staggering, similar to cerebral ataxia, symptoms which have been described by several authors. Actual symptoms of poisoning, such as severe malaise, cyanosis, vomiting gastric disturbances were seen by us in only two cases, in which trional was administered in several doses during the day, although the total daily dose did not exceed the customary limits. In two other cases slight after effects occurred while the drug was being administered in this manner, so that we are therefore inclined to assume that disturbances manifest themselves more readily after several fractional doses than after a single large dose. As a matter of fact, all the symptoms disappeared within a few hours after discontinuing the remedy and failed to return later if its administration was continued in the proper dose.

One of the main points in the administration of trional is the dosage. This explains in many cases the numerous contradictions in the different reports with reference to the inefficacy of the remedy on the one hand, and the unusual occurrence of after effects on the other. Above all, we would emphasize the radical difference in effect between males and females, which has nowhere been mentioned hitherto. If in one case the administration of even 1 gramme is followed by malaise and a staggering gait, while in another 3 grammes scarcely suffice to produce sleep, this circumstance is easily explained if we have to deal in the former cases with a young woman, in the other with a vigorous man. On an average male patients require at least 0.5 and at the most 1 gramme more than females. A second important element in the dosage is the constitution and bodily weight of the patient. After administration of as small a quantity as 0.5 to a hyphotic girl, whose weight was twenty kilo, we noted well marked vertigo. A third point is the nature of the insomnia or psychosis; aside from these factors a number of conditions must be considered which exert some influence if present for a time, even for a number of hours; these are psychical excitement, hallucinations,

menstruation, and the ingestion of food. For example at a time of especially violent excitement, a patient will require a large dose, 2 to 3 grammes, to obtain the full effect, without experiencing ill results therefrom, while later when at rest the same dose would produce disagreeable after effects. Besides this, the effective dose gives comparative little latitude, and quite closely approaches the dangerous limit.

For all these reasons we cannot agree with previous observers who let the dose range from 0.5–3 grammes, fixing the latter as the upper limit. It must again be emphasized that trional demands a dosage accurately regulated according to the sex, constitution, bodily weight, the nature of the disease, and the presence of temporary symptoms, the dose being subject to daily revision if possible. It is frequently advisable to determine the quantity to be used in the evening just before its administration, which is perfectly feasible on account of the rapidity of the effect, and preferable to giving a second dose later in the night. A well estimated single dose in the evening assures almost without exception a good effect.

It remains to consider the main indications governing the employment of trional. Its action is almost absolutely certain in simple insomnia and also in cases of neurasthenia, the initial dose for males being 1 to 1.5 grms., for females 1 grm. and later reduced to 0.5 gms. Similar brilliant results may be obtained in simple melancholia from the same doses, especially in the above mentioned combination with opium. Larger doses are required in mania, but have equally good effects; 3 grammes may be administered to males, 2 grammes to females, the large doses during attacks of especially marked excitement, the smaller during their subsidence, while during the period of convalesence, they may be reduced to 0.5 grm. Trional has a remarkably favorable action upon the hallucinations both in the acute forms as well as in chronic paranoia. The patients, often to their own surprise, slept quietly and undisturbed, even after administration of medium doses 1 to 2 grammes. In delirium tremens, if the dose is accurately estimated, the effect seems always to be developed. In the other psychosis we have not as yet obtained results which would warrant positive conclusions, and the numerous cases in the literature furnish no uniform data, especially since the above mentioned points are not sufficiently noted in reporting the results. Further observations, which should be as specific as possible will be necessary to explain the still uncertain indications for the use of the remedy in paralysis, morphinism, etc.

This much is well established, that trional although devoid of useful sedative properties, may be warmly recommended as an excellent hypnotic; in small doses in simple and neurasthenic insomina, in combinations with morphine in cases of bodily pains, in combination with opium in melancholia, in medium doses in cases of hallucinations, in larger ones in mania. The drug has no specific influence upon the psychosis. The effective dose varies according to the individual and the symptoms, ranging from 0.5 to 4 grammes.

It closely approaches the limits of dangerous effects which sometimes manifest themselves after small doses down to 1 gramme, so that a generally applicable maximum dose cannot be designated. We are even the less inclined to fix the maximum daily dose, since it is our custom to administer trional only once pro die and in the evening. Injurious after effects can be easily avoided and rapidly and completely disappear as soon as the remedy is discontinued. Permanent ill results have not up to this time been observed.

MR. SUMMERBOARD—"What are you going to do now?"

Mr. J. Hay Seed—"Jist a settin' this hen."

Mr. Summerboard—While you are about it couldn't you set the rooster, too?"

Mr. J. Hayseed—"Set th' rooster! If that ain't a good one! W'y—"

Mr. Summerboard—"As I was saying, could you not set him for about six in the morning I am tired of being awakened at daybreak."—*Lowell Vox Populi.*"

AN illustration of the severity of the times is found in the fact that two London physicians lately advertised in a daily paper, offering $5,000 to a man who would submit to an experimental surgical operation involving some risk. One hundred and forty-two answers were received.

The Columbian postage stamps may not be the greatest works of art, but they are pretty hard to lick.

SOCIETY REPORTS.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

January 19, 1894.

[Stenographically Reported by C. C. Mapes, M. D.]

MICROCEPHALUS — PROPRIETY OF OPERATION.

DR. A. M. VANCE: I asked this lady to bring her baby here this evening to show a typical case of arrest of development of the brain—microcephalic condition—and to bring up the question of an operation which I performed once or twice in this city. This case seems to me to be a typical one of the class which have been operated upon formerly even more than at the present time. I have recently come to the conclusion, more particularly from reading and also from my experience, that craniectomy for microcephalus is an unjustifiable operation, and I have so informed this mother. This child has practically no mind, and is also paralytic. In talking with Dr. J. F. Barbour, who receives a great many foreign exchanges, he told me of a report by some French surgeon who for years has had charge of one of the largest foundling asylums in the city of Paris, who reports eighty-three cases correlated by him and in this report he draws the conclusion that in no case did good result from the operation. In the case I reported some time ago, and also made a continued report,—the patient was about the age of the one before us,—there has certainly been no material improvement from the operation. I opened both sides of the head, allowing a period of several months to elapse between the operations and while the child had no trouble from the surgical procedure, there has been practically no improvement in the condition after almost a year. I would like to hear an expression from the fellows on this subject. The Frenchman I have referred to states that it is entirely a mistake to suppose early ossification is the causative agent in lack of development of the mental faculties; that the brain ceases to grow, and early ossification takes place owing to the arrest of development of the brain substance.

DISCUSSION.

DR. J. M. RAY: I have nothing to say regarding the surgical procedure, but I would like to see an ophthalmoscopical examination made of the eye.

DR. A. M. CARTLEDGE: I do not think from what I have read, and what Dr. Vance, who has had considerable experience with this class of surgery, says, that the results justify an operation.

DR. TURNER ANDERSON: I do not see what could be accomplished by an operation in this case. It is the first typical microcephalic child that I have ever seen.

DR. E. R. PALMER: How long has this child been going to see a doctor, and has there been any discharge from the nostrils?

DR. A. M. VANCE: The mother dates the trouble back to an attack of pneumonia lasting for three weeks when the child was about a month old. There was some catarrhal trouble at that time which was attributed to the attack of pneumonia.

DR. WM. BAILEY: Cases like the one before us have generally been regarded as utterly hopeless. I was delighted at the prospect that was offered to the profession in the claims made by those who were operating according to the method Dr. Vance has spoken of, that some good might possibly come to these hitherto hopeless cases. I do not think it has been determined what is the pathological condition here, whether the arrest of brain development is dependent upon consolidation of the cranium and want of development there. I think that it is noticed that the cranium closes sooner in these cases and more firmly; then, again, that there seems to be a failure of development of the brain, so it is a question in my mind whether the trouble is early ossification, or whether a failure of brain development precedes that condition, dependent upon something else that we do not know. I was hopeful when operation was first proposed and reports made by those operating, that improvement would follow. I can readily see how by opening the skull, giving the brain additional room, that temporary improvement would come, and I believe this is the history of some of the cases—that the muscular spasms, that the irritation apparently is diminished for the time being, but I am sorry to learn that there is no better outlook for the operation.

DR. T. S. BULLOCK: Like Dr. Cartledge the only knowledge I have of these cases is from reading, and from this I have come to the conclusion that operative procedure is unjustifiable, and I question very much

whether there is any betterment of symptoms even of a temporary character.

DR. W. L. RODMAN: I, like the other gentleman, who have spoken except Dr. Vance, have never done a linear craniotomy, but I have had several opportunities to do it; in fact, I was called to see this case three months ago, having been asked to see it by Dr. Woody, and declined to operate, I do not see that there is anything to be gained by an operation, and have never believed in it. I have seen it done several times and have been so situated that I was able to follow the history of a number of cases that had been operated upon by Keen and others at Philadelphia. The result in these cases was such as not to encourage me to operate. Two years ago this month I visited Dr. Kerlin, who was then Superintedent of the largest Feeble Minded Institute in the United States, which you know is at Elwyn, Penn. He talked a great deal about the operation. He told me that a number of children in the Institution had been operated upon by Keen and others without improvement. Keen has done more work in this line than any other surgeon in this country or anywhere else, except Lanilangue, who first performed the operation. It is a dangerous procedure as we all recognize, a fair proportion of the patients dying on the table. In view of the fact that it is such a dangerous procedure, and that results have not been as good as we might have expected, I believe the operation is one which will very speedily fall into disuse. It seems to me that it is not based upon good pathoIooy and I believe the operation has no place in the surgery of the future.

DR. J. A. LARRABEE: This is the fourth case of microcephalus I have seen recently, and I believe this child is in better condition than any of the others. The last one seen was in New Albany, Ind., a child probably two or three months older than the one before us; head measurement 15 inches, while this one measures 16 inches. While in the other cases the attention could not be drawn to anything this child sees without doubt and is attracted by distant objects. The palatine arch in this case is not nearly so high as in many other cases. The vaulted arch of the palate which lessens the capacity of the cranium is much better in this case than in the three others I have alluded to.

In regard to the matter of obtaining relief by craniotomy or by division giving the brain more room: I believe that operation is adapted to some cases where we have a condition opposite to this, and that is of hypertrophy of the brain, by which I mean an increase of the white fibrous tissue crowding out the gray matter of the brain so that it cannot be deposited. I believe in such a case as this benefit might be expected from an operation. But in a microcephalic skull like the case before us, it has simply adapted itself to the brain and I fail to see the necessity for an operation. In the other class of cases the child is forever trying to break its own skull. I have seen cases of this kind where they have endeavored to strike the head to obtain relief; it would seem that if we could take a mallet and break the skull as we would break a cocoanut, it would afford the proper relief. In hypertrophy of the brain, when the skull is divided in *post mortem* examinations the convolutions are found so flattened, the brain is so pressed that you cannot introduce a small instrument between the folds. It seems to me that there is an indication for craniectomy in such a case, and we might hope for relief by it, but as I have already intimated I do not see what hope we have for relief by operation in the opposite condition, like the case before us. From my experience and observation with several of these cases, I believe the best results are obtained by putting such children in a Feeble Minded Institution, where they may be properly cared for. In such an institution some development takes place, and in the case before us I should have more hope by that method of treatment than anything else.

DR. E. R. PALMER: There is one question I neglected to ask, and that is whether this mother ever had a miscarriage?

DR. A. M. VANCE: She has had one miscarriage at the fourth month, and preceding the birth of this child.

DR. C. W. KELLY: I can only voice the opinion expressed by Dr. Bailey so far as closure of the skull upon the brain is concerned; first that there is arrest of brain development, then closure of the sutures. It is evident that there is arrest of development of the brain otherwise there would not be closure of the fontanelle and sutures. If that be true an operation would necessarily not be warranted or justified; certainly I can see no future for operation upon cases of this character.

DR. W. C. DUGAN (Visiting): I have had no experience in this class of work; I have assisted Dr. Vance in one operation, but had no opportunity of following the case to see what the result was. Dr. Cantrell, of Salt Lake City, Utah, some time ago sent me several photographs of a patient he had operated upon by the method Dr. Vance has mentioned. This patient had spastic paralysis of one side. Before the operation there was no intelligence, whatever, but there was certainly great improvement after the operation. However, not enough time had elapsed to justify him in coming to any conclusion, but certainly the spastic hemiplegia was entirely relieved by the operation.

DR. E. R. PALMER: There is a man in this city whom I knew as a boy, and I knew him to be in active syphilis when he married; if he has not a child which is an absolute mate to the one presented here to-night, I never saw two cases of disease that looked alike. The child is now about three year old, and is carried about by its grandfather; it has the same convulsive movements the same strabismic condition, the same characteristic Hutchinson's teeth. The mother gives the history of a miscarriage at four months, just as in the case before us to-night. It is a very common thing for people who live a few miles in the country to come in town and in their "lark" as they call it, contract a case of syphilis, go back home and have some such result follow as we see in this case and also in the case of the clerk I have mentioned. The father of the child presented to-night lived within a few miles of Asheville; of course there is nothing personal in these remarks. The child seems to be well nourished. It has not the characteristic fingers of hereditary syphilis, but it certainly has notched teeth which, however, might occur from ordinary malnutrition; but it is strikingly like the child of the clerk I have spoken of whom I knew to be in active syphilis with early secondary eruption out when he married, and his wife so far as her general appearance goes, is absolutely devoid of any syphilitic manifestations.

If an operation is advisable it would be that the public might be relieved of the care of a child which is unquestionably an incurable idot.

DR. A. M. VANCE: I have very little to say further. It is a subject that ought to be discussed because these children are being operated upon every day, and I do not believe the literature of the subject will bear us out. I believe it is about seven years since the first operation was done and this French surgeon has collated eighty-three cases; he is a man evidently of large experience having had charge of the largest Foundling Asylum in Paris for twenty years, and he states that no benefit is derived from operation. He also makes the statement that he is convinced from his operations, that in many of these cases it is not primarily a bone trouble but it is arrest of development of the brain and ossification takes place as a consequence.

I do not think the history of this case points to syphilis as the cause. I have never heard it brought up before. The fact that this is a microcephalic child does not prove that there is a specific element in the family; on the other hand there is absolutely no history of syphilis on either side.

I do not think I will ever do another operation for a condition of this kind, as I believe it is unjustfiable.

DR. D. T. SMITH: First in regard to Dr. Palmer's position that this is syphilis. That the child may have syphilis of course I am not prepared to deny, but that syphilis can perpetuate or produce microcephalus, or that syphilis has any relation to microcephalus, I am not at all prepared to believe.

As to operation: I agree with Dr. Vance that we have reached the position where we all know that operation promises nothing except that it might to a certain extent eliminate from society this troublesome element.

In reference to the conclusions arrived at by the French surgeon, as quoted by Dr. Vance, who claims that there is an arrest of growth or development of the brain, which causes an arrest of the skull and consequent ossification. It seems to me it would be a very hard thing to prove that such a condition occurs. We know very well that through the entire course of animal evolution, there is a correlation between the growth of all parts. Who ever heard of the bones outgrowing the muscles of the arms, for instance, or the arteries or nerves being to short. The forces are so balanced that whatever causes arrest in development of one, similarly affect the other; so I take it where there is arrest of the brain there must necessarily be an arrest of the skull from the same cause, and vice versa.

DR. T. L. MCDERMOTT: I take it that this condition of affairs may be due to some faulty development of the ovum; for instance in a family of eight children, you will usually find seven robust children and one microcephalic child. You will find a history of a miscarriage connected with it, in which there has been defective development of the ovum, and this may have some bearing upon the case.

DR. J. A. LARRABEE: I am as fond of attributing disease to syphilis as any body can be, and I think I have rivaled my friend Prof. Palmer in attributing many things to syphilis; in fact I am very willing to refer a great many of the ills of the human family to this disease, but I think in this we have a case where the doctor draws too broad conclusions from too narrow premises. We are impressed by the rarity of microcephalic children at least in this country; we are also impressed with the multiplicity of cases of syphilis. There are several points in Dr. Palmer's relation of the cases that I want to call attention to. First he emphasizes the fact that the mother of the clerk's child was entirely free, and has been throughout, from any syphilitic manifestations, yet she gave birth to a child giving every evidence of inherited syphilis. I would like to ask Dr. Palmer how this mother could give birth to a syphilitic child and be entirely free from

the disease herself. Second, if this be true then Dr. Palmer must grant that infection of the ovum took place through the male, without contamination of the mother. Does he so grant?

DR. E. R. PALMER: It is a settled matter that many people are practically immune from syphilis. In reply to the second question, authorities differ, but my own belief which is the one most generally held by syphilographers is that a syphilitic baby has a syphilitic mother. However, many syphilitics in early stages present few or no evidences of the disease and that too where no treatment is instituted.*

DR. J. A. LARRABEE: Another point: Emphasis was placed upon the question of serrated teeth, which is a condition of absolutely no importance in deciduous teeth. Characteristic Hutchinson's teeth are furrowed, notched or grooved, and without enamel; but this condition must exist in the permanent teeth to be of value as a diagnostic point. This mother stated that the child was unable to nurse for three days; it is a well known fact that a child suffering with acute pneumonia cannot nurse, so that this fact has no practical bearing upon the question of syphilis. If the child had had obstructed nostrils at birth and that condition had continued for six or eight weeks, that would be an unmistakable evidence of syphilis, but no such history can be elicited. We have not asked this mother what influences were brought to bear upon her individually. It is a recorded fact that during and immediately after the siege of Paris, microcephalic and idiotic children were born in such numbers that all the asylums were filled. An investigation proved this to be due to the maternal impressions received during the insurrection. This mother has not been interrogated as to what maternal impressions may have been received during the time she was carrying this child.

From our present knowledge of the disease I think the effect of syphilis upon the brain is to increase the growth of the packing or white fibrous tissue, and we would be more liable as a result to have an opposite condition of the head from microcephalus, we would get hypertrophy. I believe this is the position taken by all authorities upon the question of syphilis, but I have never heard it intimated before that microcephalus might be the outcome of syphilis.

* Bergh states (*Hospitalstidende*, 1893, p. 697) that, while it is generally acknowleged that syphilis may be inherited as well from the father as from the mother, it has been doubted that the child may inherit from the father while the mother remains in perfect health without syphilitic taint. Bergh has observed a case which appears to prove the possibility of this condition.

A young prostitute who never had suffered from syphilis was delivered of a female child, who, three weeks after birth, presented evident symptoms of hereditary syphilis (erythema syphil., ulcers in the anal region, coryza). The symptoms disappeared after treatment with calomel. More than six months after the birth of the child the mother came under treatment for recently-acquired syphilis, with indurated chancre, enlargement of the inguinal glands, etc. The child had been reared under circumstances in which it was not likely to acquire the disease, the symptoms being those of inherited, not acquired syphilis; and the fact that six months later the mother was taken ill with the primary symptoms seems to prove that she must have been healthy at the time of childbirth.—ED.

Milk as Drink.

Milk is an important food and should not be taken as a drink simply. If eaten as the Persians use it, holding it in the mouth until it is thoroughly combined with the saliva to aid in its digestion, as a part of the meal it is all right, taking the place of other food. It requires digestion as necessary as any other food, but, that it may digest, it is first formed into a solid mass—"curd," and is then acted upon like other solids. Unlike water, which requires no digestion, as a drink, it cannot take the place of our special drink between the meals without much taxing the organs of digestion. This principle is well illustrated by the fact that the nursing infant cannot take its food rapidly, as it must pass through many small orifices, sieve-like, the drawing process exciting the flow of the saliva, aiding in the digestion of the milk and the nourishment of the babe. I repeat, emphatically, that it is food, and not a proper drink.

IF we would take sufficient time for our meals, chewing our food as much as the circumstances really require, taking as much pains in this matter as the smoker does to light his filthy pipe—worse than wasting time in smoking it—we would have much better digestion, with abundance of time for all real duties. We shall all have time for our meals and for sleep, if we waste no time in useless amusements, or anything not required by actual duty, engaging only in such pursuits as will promote our health and happiness.

PROFESSOR—How. long should a man's legs be in proportion to his body? Mr. Lowstand—Long enough to reach to the ground, sir.—*Yale Record.*

CURRENT LITERATURE REVIEWED.

IN CHARGE OF ELLISTON J. MORRIS, M. D.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES

for March. Dr. Andrew J. McCosh contributes the

Report of Four Cases of Brain Surgery.

The author confesses that the recent advances in the localization of brain functions have not added to the success in treatment of epilepsy by operative measures and states that the results obtained, so far as cure is concerned, are but little better than those obtained a score or more years ago. While it is true that certain cases of Jacksonian epilepsy have been cured permanently by operation, yet we must acknowledge that operations for the cure of true idiopathic epilepsy have been discouraging. The author believes that most of our accurate knowledge must be derived from the observations of the pathologist and and surgeon, as experimentation on animals has thrown but little light upon the matter. The first case reported by the author is one of extra-dural hemorrhage with convulsions, in a lad of eighteen years, the result of a fall received the night before his admission to the hospital. At the operation the surface of the dura matter under the clot was found roughened, but was not lacerated or apparently injured in any way. It was not opened. No additional clot or sign of fracture could be discovered. The patient had a slight convulsion, limited to the right hand and leg, shortly after the operation; but no further sign of cerebral irritation showed itself and the patient made a rapid and uneventful convalescence. He has been perfectly well ever since, earns his living as a bricklayer, and does not hesitate to go on an occasional spree.

The second case occurred in a boy of six years suffering from extra-dural hemorrhage with convulsions and paralysis, the result of a fall down stairs when he is supposed to have struck his head. On the seventh day after injury he began to have convulsions and the operation was performed on the eighth day. On the fourth day after operation there was a discharge of broken-down brain tissue from the drainage tube and a tendency to hernia cerebri. This however, had ceased on the seventh day and the paralysis of motion and sensation had almost disappeared. At the end of two weeks the boy was out of bed, without sign of paralysis. He has been in good health ever since; he has attended school, is bright at his lessons, and entirely free from pain, convulsive movements, or paralysis of either sensation or motion.

The third case is one of drainage of the lateral ventricle in a man of twenty-nine years, florist by trade, who gave a history of occasional attacks of unconsciousness ever since he was twelve years of age. The author states that the patient, at the expiration of eleven and a half months from the time of operation, continues bright and intelligent, and no convulsions have occurred. He has no headache or tenderness of the cicatrix. His memory is good. He has been intoxicated more than once without bad consequences.

The last case was one of epilepsy in a girl of six and a half years in which there existed a sub-dural organized clot. The child recovered quickly from the operation and showed very little shock. For three weeks following there was no special change for the worse or better. The convulsions continued as before, as did the paralysis. Five months after the operation the child had gained in weight and appeared brighter, but the convulsions had not been modified by the operation; they occurred as frequently and their character had not changed. A slight improvement in the paralysis had, however, taken place. Under the date of January 16, 1894, the author notes "during the past four months the progress of the case has been most interesting. In the beginning of October the convulsions became more frequent, averaging from twelve to eighteen in the twenty-four hours. The patient was again admitted to the hospital for the purpose of inserting gold foil between the dura and the brain. The child, however, had slight fever, and in a few days it was evident that she had typhoid fever. The case was rather severe and protracted. The remarkable fact about it was, however, that from the time the disease was well established, not a single convulsion occurred. The child has now been well for about two months, and during this time she has been entirely free from any convulsive movements. She has grown considerably, and the partially atrophied muscles of her right arm and leg seem to be fuller and stronger, though a certain amount of paralysis still persists."

The author states that he has trephined three other patients for epilepsy within the last few months. All have recovered from the operation, though it is too soon to speak on the results. The mere removal of a button of bone from the skull seems to improve nearly all epileptics for a few months, and it is rather misleading to report on the condition of these patients before sufficient time has elapsed for the disappearance of the amelioration which may be attributed to the operation *per se*.

The paper is illustrated with diagrams showing the position of the trephine wounds.

Dr. Herbert Snow, of London, Eng. contributes a paper on

The Early Diagnosis and Practical Surgery of Cancer.

He says, "With the exception of a numerically small congenital group of tumors, which he has classified under a special term, *Blastoma*, and which mostly differ from ordinary cancer in arising spontaneously, malignant new-growths are almost entirely restricted to women above the age of thirty-four, to men past forty. Further, they appear in organs which have fulfilled their func-

tional purpose and are undergoing devolution, as now effete appendages, *e. g.*, the sexual organs of women; or else in tissues whose vitality has become conspicuously impaired, such as the buccal mucous tract of men. Hence we are bound to look with grave suspicion upon any incipient tumor-formation in these parts of the respective sexes; in people growing old; in those whose general health and energies have, from any cause, become markedly undermined." The two items which most prominently demand attention are first, the age of the patient; and secondly the history of the case. In the female mamma, the age of thirty-eight years forms a rough limit, which the author has often found of great practical use. Under that period, there is much probability in favor of the non-malignancy of any doubtful "lump." It may be laid down as a practical axiom, too, that no average species of malignant tumor in the adult ever appears without an adequate and generally ascertainable exciting cause. The patient often gives a history of hard toil, privation, or of especially laborious occupation. Among the last named, laundry work, in the author's experience, stands pre-eminent. When a middle-aged woman comes to the Cancer Hospital with a breast tumor, and says she has been a laundress, he has learned to regard the growth as almost certainly malignant. The author reiterates the statement so oftened made that persistent and early uterine hemorrhage in a woman, who from her age may be regarded as predisposed to cancer, should always induce a prompt local examination. In men, a very considerable proportion show marks of antecedent syphilis; others are alcoholic individuals, who also smoke, both of which practices directly deteriorate the epithelium. Men of the laboring class rarely pay the attention which women do to cleanliness. The mouth in particular is commonly foul, and decayed tooth-stumps are seldom interfered with; hence the natural sequence of epithelial cancer, almost invariably the manifest result of neglect. An enlarged lymph gland in the neck, axilla, or groin occuring in a man of forty, not associated with an obviously septic cause in the vicinity (e. g., suppuration, syphilis, diphtheria) and following no mechanical injury, will almost certainly prove to be an incipient cancer, yet the author states that he has seldom met with one of these distressing cases in which the gland had not been painted for weeks or months with iodine. As an example of the evil results of delay and the reliance of upon certain microscopical indications of no more than merely negative value, the author refers to the case of the late Emperor Federick of Germany. The author is of the opinion that the microscope for diagnostic purposes is of doubtful use.

It is of vital importance always, in the surgical excision of these lesions, at the same time to remove thoroughly all of the dangerous lymph glands in the "infection path;" and this, if possible *before enlargement has been suffered to take place.* In the proper working out of this maxim, combined with early diagnosis, lies all the best hopes of improvement in the cancer-surgery of the future.

Nothing is more pernicious than the custom of witholding opium from the average patient until he or she is worn out with pain. Opium, persistently given from the earliest moment at which there is reason to believe the disease incurable by surgical means, not only materially prolongs the individual's life, but it has often a most marked influence in arresting the progress of the growth. A carcinomatous breast thus dealt with, previously to the stage of ulceration, may often be successfully diverted from a rapidly advancing tumor into that withered "atrophic" induration which permits many years of fairly enjoyable life. With this should be enjoined as passive and vegetative a mode of existence as possible; and to such, careful nursing will materially conduce. Cocaine-hydrochlorate internally administered is a useful adjunct to the opiate treatment. Its advantages are best seen in malignant disorders of the alimentary canal. Iron, arsenic, quinine, tonics in general are useless except as placebos.

Dr. Robert P. Harris presents an account of

A Double Ovariectomy, Performed Fifty Years Ago,

by the late Dr. John L. Atlee, of Lancaster, Pennsylvania, upon a lady who is still living and in excellent health. The case has several features of note, viz.: 1. The patient has lived longer after an ovarian exsection than any subject whose case is on record. 2. As far as can be ascertained, she is the first from whom two ovarian tumors were exsected at one operation, in any part of the world. And 3. She was the first subject on which the late Dr. John L. Atlee performed an ovariectomy, out of his list of eighty cases, covering a period of forty years. The reporter takes exception to the term "ovariotomy," which does not express excision or extirpation, and prefers the term "ovariectomy," used in the same sense as "hysterectomy" or "nephrectomy," as the more correct. The report of the operation appeared in *The American Journal of Medical Sciences*, for January, 1844, and is embodied in Dr. Harris' account. The five ligatures used in the operation, having one end cut off near the knot—as was then the custom in amputations and extirpations—were brought out at the lower angle of the wound and secured, and the abdominal cavity was cleansed by sponging. The wound was now closed by seven sewing needles inserted at intervals of an inch, and wound in the figure of 8\ form with silk, as in the hair-lip suture, strips of adhesive plaster being placed between them for additional security. The lady made a good recovery, and was only bled once, which was to the extent of ten fluid-ounces, eleven hours after the operation, when her pulse rose to 136, but it fell to 120 after the venesection. The patient was remarkably well by the tenth day, with a clean tongue, sleeping well, able to sit up, and to walk several times across her room. Three weeks after the operation, she took a ride of two

miles, and two days later, of five or six miles; and on this date the doctor ceased his regular attendance. The operation was performed without either and lasted forty-five minutes. As the patient was alive to every sensation, she particularly refers to the process of breaking up the adhesions of the right tumor, which she says were five, and the separation of which caused an indescribable measure of suffering. In her after-treatment, she says she had a doctor, or a student of medicine with her, night and day for several weeks, and think they felt her pulse every half hour. She remembers being permitted to walk once across her room at the completion of two weeks; and taking a ride of two miles, a week later. She has led a busy life for half a century, and is described as still "active and sprightly."

In his report, Dr. Harris reviews the history of ovariotomy and presents a table of completed "ovariectomies" prior to that of June 29, 1843, together with a short sketch of the life of Dr. John L. Atlee.

The remaining papers in this issue are: "A Contribution to our Knowledge of Epidemic Cerebro-Spinæ Meningitis," by Simon Flexner, M. D., and Lewellys F. Barker, M. B. (Concluded).

"The Times and Modes of the Introduction of the Exotic Diseases of Children into America," by J. Lewis Smith, M. D.

"A Case of Leukæmia, with rare Lymphoid Growths of Orbits and Parotid Glands," by Thos. D. Dunn, M. D.

"Neuralgia of the Right Cranial Nerve of Sixteen Years' Duration; Excision of the Three Divisions at the Gasserian Ganglion; Death," by J. T. Eskridge, M. D., and E. J. Baker, M. D.

"Comparative Vitality of Men and Women," by Brandeth Symonds, A. M., M. D.

IN THE BRITISH JOURNAL OF DERMATOLOGY for March appears an article by Dr. Edward Ehlers on

Leprosy in Iceland.

The author states that until the last few years it was believed that leprosy had been gradually diminishing, in consequence of government efforts to exterminate it, and was only to be found in Norway, Iceland, and a few other countries.

Owing to its long incubation, it was supposed that most cases occurring outside these regions had been contracted during previous travel.

Some sporadic cases occasionally seem to occur, but the diagnosis has always been received with doubt. One or two cases were called leprous trophoneurosis, and were supposed to differ from the old type of leprosy as modern syphilis does from the ancient form.

Zambaco Pasha now declares the diseases known as syringmyelia and Morvan's disease, to be nothing more than leprosy—the new terms arising from defective diagnosis, and he apparently proves his points. He goes even farther and declares scleroderma, sclerodactylia, ainhum, morphœa, and local asphyxia with symmetrical gangrene, to be consecutive stages and abortive forms. The author is not unwilling to concede ainhum as a possible form of leprosy, but does not think scleroderma and sclerodactylia can possibly be. He states that a large and flourishing leper colony exists in Iceland, and proposes an expedition to it to obtain proof, negative or positive. The paper will be continued in the next issue of the journal.

Dr. Wm. Anderson reports two cases of

Morphœa;

one in a married woman of forty-two years, in whom nothing abnormal was found after excision of the skin, and the latter showing no great microscopic changes—even the induration had disappeared almost completely after excision. In the other case the skin over the mammary gland was affected in a woman of seventy-two years. The thickened part was slightly purplish and over (but in all points separated by a layer of fat from) a scirrhus of the breast. The axillary glands were enlarged and the arm œdematous. In this case, again, the microscopic examination threw little light on the affection.

The same author reports a case of gangrenous cellulitis of the leg. A stoker, forty-two years old, suffering from gangrene of the skin on the dorsum of the foot, exposing the extensor tendons, and with inflammation as high as the patella, the skin discolored and separated from the subjacent tissues by sanious pus. The patient gave a history of the fall of a piece of iron on the foot three weeks before, and followed in two days by inflammation.

Sloughs and gangrenous skin were removed, a number of incisions made for drainage, a hot boracic acid injection made and the limb washed in bichloride solution 1 to 2000. A dressing of lint with chlorinated soda solution was used, and steady improvement took place. Skin grafts were successfully used to complete the skin reproduction.

The author thinks the case a rare one and that the condition was akin to the gangrenous erysipelas of former times.

Migranine.

Under this name Overlach discribes the properties of a combination of antipyrine with caffeine and citric acid. He considers it a chemical combination of the three substances and after five years experience of its action in cases of migraine and other forms of headache, he has come to regard it as an almost infallible cure, even in the most obstinate cases. It is useful whether given in the premonitory stage or after the headache has fully developed and it is seldom that more than one dose is required. The dose is 1.1 gm. to be dissolved in water. This quantity contains only 0.09 grs. of caffeine or one-sixth of the maximal dose of this substance. It is recommended that the patient rest awhile after taking the drug, especially in cases of severe migraine.—*Deutche Med. Woch.*

PERISCOPE.

IN CHARGE OF WM. E. PARKE, A.M., M. D.

MEDICINE.

The Treatment of Erysipelas with Pilocarpine.

The credit for the recommendation of pilocarpine hypodermically, in the treatment of erysipelas belongs to Prof. Da Costa. It is the custom of the author to inject daily one-sixth of a grain of pilocarpine, and in order to maintain the physiologic effects of the drug, to administer besides from fifteen to thirty minims of the fluid extract of pilocarpine thrice daily. Under this treatment, the temperature, as a rule, soon declines and the exanthm speedily disappears. This treatment is applicable in properly selected cases. The manner in which the drug acts is not known. —A. Ashner in *Coll. Clin. Record.*

Indications for Treatment of Angina Pectoris.

Dr. J. Burney Yeo, summarizes the treatment of angina pectoris, as follows:

1. To maintain or improve, when defective, the general nutrition; to avoid all strain, physical and emotional, and to relieve cardiac feebleness and excessive effort.
2. To relieve dyspeptic conditions and flatulent or fecal distentions of the stomach and intestines.
3. To forbid the habitual consumption of agents which may exercise a tonic action on the heart, such as tea, coffee, alcohol, tobacco, etc., or that which may introduce or develop toxines in the alimentary canal.
5. To avoid and remove all gouty and other blood contaminations.
5. To give such tonic remedies as may improve the cardiac tone and lessen existing tendency to cardio-vascular degeneration.
6. To relieve the paroxysmal attacks by sedatives and stimulants.—*Boston Med. and Surg. Journal.*

Burns.

The most exquisitely painful burns are assuaged in a few moments by an application of cocainized campho-phenique, after the following formula.

℞ Cocaine in hydrochlorate.....grv.
Campho phenique
Olive oil.....āā ℥ss

M.—Rub up the cocaine and campho-phenique, and add the olive oil.

A man whose hand had been torn and badly burned by an electric discharge, the pain of which was so severe, that he fainted twice before the dressing could be applied, expressed himself as absolutely without pain in less than one minute after the application.—*Med. Review.*

Guaiacol as an Antipyretic.

Guaiacol has been, and as is well known as a substitute for creasote in a large number of cases of pulmonary disease, where that drug was indicated, and so far as we know, has given so much satisfaction that it bids fair to supplant creasote in the treatment of many of these affections. Within the past few months the profession has begun to recognize the fact that it possesses other powers than those of an expectorant and antiseptic, or stimulant of the mucous membrane, and a number of prominent physicians have employed it for the reduction of high temperature.

Two of the most notable contributions which have been made upon this subject—the clinical lecture of J. M. DaCosta, and the interesting paper of Rabillard—are particularly worthy of note. In both these instances these clinicians used the drug externally upon the skin of the thigh, abdomen or chest, either by means of rubbing, or by painting it on with a camel's hair brush. After it was applied to the skin it was thought advisable in some cases to place an impermiable dressing over it in order to prevent evaporation. As a result of the application of 20—50 minims of guaiacal in this manner, it has been found that the temperature of malarial fever, typhoid fever and pneumonia rapidly falls as much as seven degrees in the course of an hour or two. DaCosta asserts that this rapid reduction of temperature is not accompanied by any marked disturbance of the nervous system, or any evidence of collapse, not even by a very profuse sweat; neither does there appear to be a very active chill, although sometimes slight dullness is experienced. The drug does not seem capable of holding the temperature down for any length of time, but it has been found perfectly safe to employ it as often in the twenty-four hours as is necessary to prevent pyrexia appearing with severity. DaCosta suggested that in many cases it may take the place of the cold bath as far as the reduction of the fever is concerned; but whether or not guaiacol on further use proves to be a valuable antipyretic, we are sure that the therapeutic results obtained by the cold bath cannot be substituted by this means of treatment since the cold bath undoubtedly exercises a therapeutic effect over and above that exercised by guaiacol. We do not wish to be understood as stating that Dr. Da Costa believes that the cold bath should not be retained. He simply suggests that guaiacal be employed in its place, when because of the lack of attendance, the bath treatment cannot be carried out, and because he believes that guaiacol is preferable to the antipyretics derived from coal tar in the reduction of temperature. In the treatment of hectic fever of tuberculosis J. Solis Cohen and others

have found this drug of equal value. It may be painted on the chest in the area occupied by the pulmonary disease, but it is said to be contra-indicated in cases in which there are hemorrhage or well-developed cavities.—*The Therapeutic Gazette.*

SURGERY.

Chloride of Ammonium in Cystitis.

Dr. G. Carrie, of Blossom Hill, Va., states that he has had excellent results from pulverized purified ammonium chloride, taken three or four times in the twenty-four hours, preferable when the stomach is somewhat empty, each dose to be followed immediately by a half globlet or a globlet of pure cold water. In the following condition the drug has given most satisfactory results in every instance: Cystitis dependent upon stone in the bladder; stricture; hypertrophy of the prostate; deposits of urates, etc.; gonorrhœa, both male and female; cystic irritation from uterine diseases or menstrual disorders; malarial effects; masturbation; early pregnancy; simple urethritis (traumatic) in newly married women; cystic and renal sequelæ of *la grippe.* In the majority of cases it was simply surprising to note the rapidity with which the urine was cleared of bladder mucus, blood-corpuscles, pus-corpuscles, urates, phosphates, etc., the distressing symptoms disappearing therewith; and in no case did the salt occasion any gastric or other disturbance, when taken as ordered.—*Virginia Medical Monthly.*

A Means of Lessening Pruritus in Cases of Urticaria.

Dr. C. Pacaud (Sillans) has observed that the intense pruritus of urticaria, in children as well as adults, subsides almost instantaneously under the application of lemon-juice. As lemons are to be found everywhere, the method indicated by Dr. Pacaud is obviously a very practical one. For our own part, we are inclined to think that the application of vinegar would be just as efficacious; and we may point out that the soothing effect of acid substances in general (plain or aromatic acetic, dilute hydrochloric acid, etc.,) on pruritus, from whatever cause, has long been recognized.—*North American Practitioner.*

Sanborn (G. H.) on Adpendicitis.

Conclusions are:

1. That in all cases the physician is concerned only in the early recognition of the disease, the subsequent treatment to be left to the surgeon.

2. That the catarrhal or mild form of appendicitis may be considered the only medical form of the disease; and delay in operating may be encouraged to a reasonable extent.

3. All cases of appendicits which, at the end of thirty-six hours from the beginning of the attack, show signs of increasing disease, should be operated on.

4. That the majority of so-called recoveries, treated medically, are not recoveries in the full sense of the word, but simply a respite which enables one to settle worldly affairs, and take out a life-insurance policy, in anticipation of a fatal termination.

5. The early surgical treatment of appendicitis enable us to avoid in every case uncertain results of a spontaneous cure, the d anger of recurrent attacks, and the often fatal general peritonitis in apparently mild cases.—*Brit. Med. and Surg.*

Catarrhal Otitis.

Dr. H. N. Spencer, of St. Louis, in the *International Medical Magazine,* says: "In children, where we may not be able to use the post-nasal spray, the head should be held well back and an injection of the fluid through the nostrils should be made by means of a dropper or an opened-mouth syringe. Such a solution as the following might be employed:—

℞ Sodii biborat.....gr. v
Tinct. benzoin. co.....mx
Glycerin.....mxx
Aquæ.....q. s., ad. ʒj.—
M.

"Two or three drops of pure olive oil may be applied after this, or an oleaginous solution composed as follows:—

℞ Menthol.....gr. iij
Camphor.....gr. v
Benzoinol.....ʒj.—
M."

ARMY AND NAVY.

U. S. ARMY FROM MARCH 4, 1894, TO MARCH 10, 1894.

Leave of absence for one month is hereby granted Captain R. B. Ball, assistant surgeon, U. S. Army, Fort Monroe, Va.

Captain R. W. Johnson, assistant surgeon, U. S. Army, will proceed to Fort Monroe, Va., for temporary duty, during the absence, on leave, of Captain R. B. Ball, assistant surgeon. Upon the return of the latter from leave, Captain Johnson will return to his station, Washington Barracks, S. C.

First-Lieut. Charles Wilcox, assistant-surgeon, U. S. Army, is relieved from temporary duty at Boise Barracks, Idaho, and ordered to return to his proper station, Pnesido, of San Francisco, California.

Leave of absence of one month is granted Major Timothy E. Wilcox, Surgeon, U. S. Army.

The leave of absence granted Major John D. Hall, Surgeon, U. S. Army is extended one month.

Leave of absence for four months to take effect on or about August 10, 1894, is granted Captain Henry I Raymond, Assisstant Surgeon.

Major John Van. R. Hoff, Surgeon, U. S. Army, is hereby assigned to the charge of the office and duties of the Medical Director. Headquarters Department of the East, during the temporary absence of Colonel Joseph R. Smith, Assistant-Surgeon General Medical Director of the Department.

NEWS AND MISCELLANY.

Dr. Thompson S. Westcott has been elected Attending Physician to the Methodist Episcopal Hospital in Philadelphia, vice Dr. F A. Packard, resigned.

The Association of Military Surgeons of the United States.

The fourth annual meeting of "The Association of Military Surgeons of the United States," will be held in Washington, D. C., May 1st, 2nd and third, 1894.

This National Organization is composed of Medical officers of the U. S. Army, U. S. Navy, National Guard of the United States, and the Hospital Marine Service—in whose service are many of the most celebrated and distinguished surgeons of our country. A brilliant and able literary programme will be presented. The afternoon of one day will be set apart for an object lesson from the "Manual of Drill," by the Hospital Corps. The evenings will be given up to social entertainments. There will be about five hundred delegates in attendence.

GEORGE HENDERSON,
Chairman Committee of Arrangements.

American Medical Association, San Francisco, Cal.

The committee of arrangements has secured Odd Fellow's Hall Building Corner Market and Seventh streets, for the meeting June 5th, 1894.

Assembly Hall, for the general meeting, has a capacity of 1,500; the twelve smaller halls for section work, range in capacity from 500 downward, with committee rooms adjacent.

The engagement carries three of these rooms on Monday for accommodation of associate organizations, as that of the editors, colleges, etc.

The banquet room on the ground floor, 65x95 feet, will be devoted to exhibition purposes, for which it is admirably adapted, and has been secured for the entire week that exhibitors may have Monday in which to place their goods, and Saturday in which to remove them. Nearly half of the space is already taken, and others who desire to make a display of their goods under the most auspicious circumstances ever presented on the Pacific coast, should lose no time in applying to chairman for space.

Headquarters for the Association have been located at the Palace Hotel cor. Market and Montgomery streets, only four blocks from the place of meeting. Here we have "Marble Hall," 30x40 feet, as a registration room where work will begin on Monday, and parlor A for committee work.

The following hotels, centrally situated and convenient to the place of meeting, have quoted special rates for members and their families, which will apply during the entire stay of the guests, who should upon registering, signify that they are in attendance upon the meeting of the Association.

The rates quoted are for single persons, the variation depending upon the size, situation and appurtenances of the rooms, as single, en suite, with private bath, etc. Special arrangement will be made for families or parties on timely notice.

Some of the hotels entertain upon the American plan only; some upon the European plan only, and some upon either plan to suit guests.

Palace Hotel (headquarters) American plan (rooms and board) $3.50 to $5.50 per day; European plan (rooms only) $1.50 to $3.50 per day. Baldwin Hotel, American plan, $3.50 to $5 per day; European plan, $1 to $3 per day. California Hotel, American plan, $3.50 and up per day; European plan, $1.50 and up per day. Lick House, American plan, $250 and up per day; European plan, $1.00 and up per day. Occidental Hotel, American plan (only) $2.50 and up per day. Hotel Pleasanton, American plan (only) $2.50 to $5.00 per day. Russ House, American plan, $2.00 to $3.50 per day; European plan, $0.50 to $2.00 per day. Grand Hotel, connected with the Palace by a glass-enclosed bridge across New Montgomery street, European plan only, $1 to $2 per day.

In addition there are many other hotels, boarding houses and restaurants contiguous to the place of meeting, where one can be made happy and comfortable at less cost.

Post office, Section R., is located in the Palace hotel on the office floor adjacent to the Registration room, where members can receive all mail matters by having it so addressed.

More anon,
R. W. PLUMMER, *Chairman.*

RED GLASS is to be tried in one of the small pox pavilions at North Brother Island, New York, in order to test the value of the experiments made by Drs. Lindholm and Vinsen of Bergen, Norway, who claim that the pitting of small pox patients is due to the sensitiveness of the skin to violet rays of light.

AT A SALE of unredeemed pledges at a London pawnbroker's, there was purchased the casket in which the freedom of the city of London was presented to Jenner on the 11th of August, 1803, for "his skill and perseverence in the discovery of, and bringing into general use, the vaccine inoculation."